Programmatic In-Housing:
Benefits, Challenges and Key Steps to Building Internal Capabilities

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- Gathering industry thought leaders to set and drive the “data agenda”
- Funding industry research to provide benchmarks and actionable insights on data management across platforms including mobile, programmatic, and the internet of things
- Developing industry best practices, guidelines, and standards for privacy, data security, and consumer data protection
- Creating educational materials including certification, infographics, videos, webinars, and seminars to demystify data for marketers and advertisers
- Hosting data focused events that feature industry luminaries to discuss data related

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The Interactive Advertising Bureau (IAB) empowers the media and marketing industries to thrive in the digital economy. It is comprised of more than 650 leading media and technology companies that are responsible for selling, delivering, and optimizing digital advertising or marketing campaigns. Together, they account for 86 percent of online advertising in the United States. Working with its member companies, IAB develops technical standards and best practices and fields critical research on interactive advertising, while also educating brands, agencies, and the wider business community on the importance of digital marketing. The organization is committed to professional development and elevating the knowledge, skills, expertise, and diversity of the workforce across the industry. Through the work of its public policy office in Washington, D.C., IAB advocates for its members and promotes the value of the interactive advertising industry to legislators and policymakers. Founded in 1996, IAB is headquartered in New York City and has a West Coast office in San Francisco.

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Introduction

Executive Summary

• **Programmatic - an engrained buying process** - Accounting for more than 80% of digital ad spending (including display mobile, social and search), programmatic is the pre-dominant digital ad placement process. Marketers’ perceived risk of developing in-house capabilities may be mitigated as programmatic is likely to be entrenched as the digital advertising process of choice for years to come.

• **Programmatic In-housing on the rise** - A study conducted by the Association of National Advertisers (ANA) indicated that in-housing has recently trended upward, as 35% of brands surveyed had reduced the role of external agencies in 2017, more than doubling the 14% rate reported in 2016.  

• **The five key benefits of programmatic in-housing** – Based on expert interviews and an IAB research study, the primary motivations for programmatic in-housing were found to be:
  
  - **Improved ad performance/ROI** – from a campaign advertising performance perspective
  - **Cost efficiency and transparency** – company operations streamlining and a closer view on where ads are being placed
  - **Better control and management of data and targeting** – leveraging the internal DMP for enhanced lower-and upper-funnel targeting
  - **Enhanced real-time optimization capability** – control for executing increasingly complex campaign testing and ongoing campaign performance
  - **Full accountability and focus on brand goals** – concentration on brand goals and revenue versus third-party partner focus on making margin

• **The dynamics of programmatic in-housing** – The quintessential in-house set up, where an ad tech stack sits within the brand organization along with media strategy, ad operations, optimization and stewardship is the minority. Instead, in-housing is more likely to take on a hybrid structure whereby select programmatic functions are handled internally and/or shared with partners. Here is a summary of key in-housing dynamics:
  
  - **Strategic functions are being drawn inwards** – Higher-level programmatic functions, including media strategy, establishing KPIs, data management and direct control of contracts with DMPs and DSPs are areas where brands seek primary control.
  
  - **Campaign analysis & optimization is at a crossroads** – Brands would like greater control over these functions but may be kept in check by in-house resource limitations which obviates the need for specialized expertise provided by media agency or DSP partners.
  
  - **Technology initiatives are being outsourced** – Brands are more apt to tap outside partners for highly-specialized programmatic functions that are likely absent from existing in-house capabilities such as technology build-outs, ad operations, data science and algorithm development.

• **In-housing metrics** – An IAB study of brand advertisers revealed the following among brands who are involved in programmatic buying, which represent 70% of all advertisers surveyed:
  
  - **Full in-housing is in the minority** – 18% of brands claim to in-house all programmatic buying functions
  - **Hybrid in-housing is prevalent** – 47% of brands have partially moved programmatic functions in house which means that they are outsourcing tasks to media agencies and/or DSP partners

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1 Association of National Advertisers, December 2017, The State of Programmatic Media Buying
• **Tested but not taking** – another 13% have trialed an in-house programmatic operation and have decided not to go forward

• **Abstention** – 22% of brands don’t currently intend to develop an in-house capability

• **Challenges of In-Housing** – the programmatic in-housing transition requires at least a one-year commitment, talent recruitment, organizational buy-in, complex coordination of partner contracts and staff training and orientation.

• **Five Thing Brands Should Do When Considering In-Housing**

  • **Conduct an internal assessment**
    
    ▪ **Evaluate media performance** – what potential does in-housing hold for improving current buying practices and making a positive impact on KPI’s?
    
    ▪ **Conduct cost-benefit analysis** – are the savings gained by severing existing partner relationships eclipsed by investments required for internal operations? Or will enhanced performance from in-housing turn a break-even endeavor into a profit-making opportunity?

  • **Create a ramp-up plan** - at least a full year is required to achieve operational readiness, including months of planning, organizational consensus, talent acquisition and platform testing. A formalized plan shared with all programmatic constituents is highly recommended.

  • **Practice “data centricity” and integrate multiple data sources** – Cultivate an environment whereby people, platforms, partners and processes are brought together to apply audience data as an actionable insight. Diversify data to include first-, second- and third-party sources for maximum advertising impact.

  • **Establish a tech stack** – assess whether to go in-house or work with partners that complement internal capabilities and have technical ad operations prowess, access to valuable inventory and service commitment.

  • **Attract and retain talent** – recruit highly-skilled talent who are excited about being challenged to refine and grow the programmatic capability as the organization develops its DMP and technology capacity.
Background and Objectives
Marketers are on a perennial quest to make advertising and promotional programs more accountable, productive and executed in environments that are in sync with their brands’ images. As digital media consumption continues to proliferate, marketers have increasingly invested in digital advertising to reach and connect with consumers. According to eMarketer, 2018 digital ad spend is expected to total $107.3 billion, substantially higher than the $69.87 billion invested in TV advertising.\(^2\)

Along with the advances in tracking and measurement systems, analysis techniques and a growing body of talent to oversee the management of digital media programs, programmatic advertising execution has become the norm for targeting and placing digital advertising, at scale and with minimal labor intensity.

During the past few years, some marketers have established in-house programmatic ad placement capabilities that leverage customer data maintained in their data management platforms (DMP’s) as well as second- and third-party sources. This undertaking may be portentous of a shake-up in predominant current programmatic practices whereby media agencies serve as an advertiser’s purveyor of digital strategy and instructor to demand side platforms (DSP’s) regarding the details of executing programmatic tactics.

A 2017 survey by the ANA found 35% of brands have expanded their in-house programmatic media-buying capabilities and limited the role of outside agencies, up from 14% in 2016. This drive for clients to take charge of programmatic is now becoming well-documented – a study by Adobe released in December predicted that 62% of brands would bring programmatic in-house by 2022.\(^3\)

The IAB Data Center of Excellence aims to facilitate meaningful conversations among buyers, sellers, and vendors about the current landscape and evolution of brands’ programmatic in-housing trend and promote informed evaluation and guidance related to this practice. The key objectives of this whitepaper are:

- To examine how programmatic in-housing has evolved to date
- To identify benefits and challenges of in-housing practices for brands
- To provide guidance on what marketers need to know when considering moving programmatic functions in house from a fiscal, technical and organizational perspective.

The insights in this whitepaper are based on a synthesis of perspectives from subject matter experts, gathered through one-on-one interviews as well as a quantitative IAB survey. Participants represented brands and presided over programmatic ad placement at their organizations.\(^4\) The document was authored by Gerard Broussard of Pre-Meditated Media, LLC.

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\(^2\) eMarketer, 2018

\(^3\) The Drum, February 14, 2018, Full programmatic in-housing is the wrong answer to the right questions

\(^4\) See detailed methodology in Appendix.
Proliferation of Programmatic

Programmatic: An Engrained Digital Process. The fragmentation of audiences across the digital media plane, combined with precisely-targeted ad serving capabilities sets a natural backdrop for programmatic ad placement. Now the norm for digital ad execution, eMarketer estimates that programmatic ad placement will account for 82.5% of 2018 display advertising spend which includes mobile display (83%). Meanwhile, programmatic ad spend will account for three of four (74%) digital video ad dollars invested this year. Programmatic share of total digital display spending is expected to rise to 86.2% by 2020. Search has a long history of automation for auction-based keyword bidding and ad placement and is considered virtually 100% programmatic. The entrenchment of programmatic as the fundamental digital ad placement process may mitigate marketers’ perceived risk of developing in-house capabilities since programmatic is likely to remain the preferred ad placement method for years to come. Automation begets efficiency and potentially reduces headcount requirements for internal operations.

Programmatic Ad Spending
US, 2016-2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Programmatic Ad Spending</th>
<th>% of Total Digital Display Ad Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$25.69 billions</td>
<td>73.0%</td>
</tr>
<tr>
<td>2017</td>
<td>$36.85 billions</td>
<td>79.3%</td>
</tr>
<tr>
<td>2018</td>
<td>$46.55 billions</td>
<td>82.5%</td>
</tr>
<tr>
<td>2019</td>
<td>$56.81 billions</td>
<td>84.8%</td>
</tr>
<tr>
<td>2020</td>
<td>$65.63 billions</td>
<td>86.2%</td>
</tr>
</tbody>
</table>

Source: eMarketer, March 2018

TV programmatic seeds planted, but growth expected to be slow. Programmatic placement is starting to permeate TV advertising, although it will likely be many years before it reaches critical mass levels for the first screen. According to a survey of ad buyers conducted by Cowen and Company, linear/traditional TV represents 12% of all programmatic media spend with the balance of dollars going to digital media. Legacy TV transaction systems and processes, as well as a more limited supply of TV inventory than digital will contain the growth of programmatic TV transactions for the immediate future.

Allocation of Programmatic Ad Spending According to US Senior Ad Buyers, by Format, Dec 2017

<table>
<thead>
<tr>
<th>Format</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear or traditional TV</td>
<td>12%</td>
</tr>
<tr>
<td>Native ads</td>
<td>10%</td>
</tr>
<tr>
<td>Mobile video</td>
<td>13%</td>
</tr>
<tr>
<td>Digital video</td>
<td>15%</td>
</tr>
<tr>
<td>Mobile display</td>
<td>17%</td>
</tr>
<tr>
<td>Traditional display</td>
<td>33%</td>
</tr>
</tbody>
</table>


* eMarketer 2018. Programmatic Ad Spending.
Current Programmatic Buying Adoption – COMBINED

- The majority of the brands who responded to the survey are currently involved in programmatic ad buying.
- 45% are currently involved in programmatic in-housing.

Is your company currently buying digital advertising programmatically, either in-house or with an agency?

- Completely or partially in-house programmatic capabilities
- Do not in-house programmatic capabilities
- No programmatic adoption

Advertisers on board with programmatic. Reflecting the high programmatic share of digital ad spend, an IAB survey of 119 U.S. advertisers found that 70% of brands are currently involved in programmatic ad buying, executing ad transactions either completely or partially in-house (45%) or through their media agencies (25%). The State of Programmatic Media Buying, a study conducted among advertisers by the Association of National Advertisers (ANA) indicated that programmatic in-housing is on the rise, as 35% of brands surveyed had reduced their media agency’s duties in 2017, more than doubling the 14% rate reported in 2016.

Depth of in-housing programmatic varies. A fully autonomous in-house programmatic capability is one where the ad-serving tech stack is owned and/or operated by the brand and integrated with media strategy, ad operations, optimization and stewardship – all internal functions. Full-bore in-house operations are atypical, given the commitment of time, resources and expertise required for most companies. For this white paper, in-housing is defined as having completely or partially moved programmatic buying functions in-house, keeping in mind that IAB survey respondents may not consider all elements of the programmatic process e.g., tech stack, to be buying functions. So, the level of in-house programmatic engagement runs the gamut from full immersion of functions to hybrid set-ups that combine both in-house and partners for ad execution. According to Matt Prohaska, CEO & Principal at Prohaska Consulting, a preponderance of marketers from CPG, retail, finance and travel categories comprise the companies who have made the move to in-housing, either fully or partially.

The IAB survey found that nearly one out of five (18%) brands involved in programmatic buying had completely moved the programmatic buying functions in-house. The more popular option, however, was to develop partial in-house capability, as 47% of those surveyed had moved select programmatic functions in-house. A small number of companies (13%) had tested in-housing and decided to outsource the capability on a go-forward basis. A fourth group of survey respondents, representing 22% of brands, have no immediate plans for programmatic in-housing. It is likely that the brands who either trialed programmatic or have opted not to bring the process in house are concerned about transitional challenges which include a minimum one-year commitment, talent recruitment, organizational buy-in, complex coordination of partner contracts and staff training and orientation. Establishing the right mix of in-house programmatic functions is unique to each brand, given the complexity of technology, talent, and fiscal considerations that will vary by marketer. A more detailed discussion on in-house/partnership mixes is included in The Degrees of Programmatic In-Housing section of this report.

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6 Association of National Advertisers, December 2017, The State of Programmatic Media Buying
## In-housing Spectrum Among Programmatic Buyers

Which of the following best describes your programmatic buying practices when it comes to bringing programmatic buying in-house? *(Among programmatic advertisers only)*

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18%</td>
<td>We have completely moved our programmatic buying functions in-house, and plan to continue the path.</td>
</tr>
<tr>
<td>47%</td>
<td>We have partially moved our programmatic buying functions in-house, and plan to continue the path.</td>
</tr>
<tr>
<td>13%</td>
<td>We tried or actually did bring our programmatic buying in-house, but decided to outsource this function to partners.</td>
</tr>
<tr>
<td>22%</td>
<td>We have no plans to bring programmatic buying in-house, rather rely on agencies and DSPs for our programmatic functions.</td>
</tr>
</tbody>
</table>

Source: Advertiser Perceptions Omnibus April 2018
Base: 83 U.S. brands that are involved in programmatic ad buy.
Benefits of In-Housing Programmatic

Not surprisingly, the key motivations for in-housing programmatic are closely linked with churning out more value from advertising spend by utilizing resources more effectively. ROI attribution, better audience targeting and campaign effectiveness were the top three programmatic in-housing objectives cited among those surveyed in the IAB study who currently have in-house capabilities. Below, we combine survey results and our interview discussions to provide detail for five key benefits of in-housing programmatic buying.

**Programmatic In-Housing Objectives**

Thinking of your company’s current and past programmatic in-house initiatives, what are/were the top three objectives? *(Among brands that in-house programmatic buying)*

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROI attribution</td>
<td>47%</td>
</tr>
<tr>
<td>Better audience targeting</td>
<td>44%</td>
</tr>
<tr>
<td>Campaign effectiveness</td>
<td>44%</td>
</tr>
<tr>
<td>Cost efficiency</td>
<td>38%</td>
</tr>
<tr>
<td>Real-time optimization</td>
<td>34%</td>
</tr>
<tr>
<td>Data management</td>
<td>29%</td>
</tr>
<tr>
<td>Cross-channel planning and execution</td>
<td>26%</td>
</tr>
<tr>
<td>Extended audience reach</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: Advertiser Perceptions Omnibus April 2018  
Base: 65 U.S. brands that are involved in programmatic in-housing

**Improved performance/ROI** enhancing ad performance is the obvious low-hanging fruit that fuels the justification for taking programmatic in-house. One industry expert interviewed for this study and responsible for setting up an in-house programmatic capability for a large CPG marketer, remarked, “What’s the point of doing anything (bringing programmatic in-house) if your media performance doesn’t get better?” The interviewee went on to say that the impact of digital spend, as measured by marketing mix models, began to improve within a year of in-housing digital media spend, driven by enhanced targeting and ongoing placement optimization. Meanwhile, MGM Resorts International experienced an uptick in media performance after bringing programmatic buys in-house. Kate Wik, MGM’s Senior Vice President of Brand Marketing offers proof positive: “We compared revenue growth and spend to revenue to the same time periods in prior years, and we’re improving. Production from our website channels versus other channels is up, which is a very healthy mix.”

**Better control and management of data and targeting** the notion of more fully leveraging DMP customer information to implement lower- and upper-funnel targeting and placement tactics to drive ROI was a recurring theme that surfaced during our expert interviews. Lower-funnel initiatives included cross sell, up-sell, in-channel optimization and personalization; all came into play. A financial services firm, for example, credited in-housing programmatic with the opportunity to target credit card customers who are close to reaching their typical monthly spend with offers to upgrade to higher credit limits. Another marketer with a similar financial product focused on sending renewal messaging to customers whose credit cards were about to expire. In both instances, customer information sourced from the DMP was used to inform these targeting strategies.

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7 Ad Exchanger, April 2017, Why MGM Resorts International Brought Programmatic In-House
Some brands that were interviewed also tapped customer information in their DMP’s to scale their upper-funnel acquisition programs through creation of lookalike models. In this scenario, anonymized customer IDs are sent to DSPs who then identify and serve ads to the cookies and customer IDs in their internal databases that possess demographic and behavioral characteristics similar to those sourced from the DMP. One financial service brand interviewed describes the process and outcome: “We had invested in a DMP and we were going to be transferring CRM files and modeling into DSP’s. We wanted to have the ability to have full control of that data flow but really the introduction of our first, second, and third-party data into the DSP has been a real game changer if you flash back a year ago where we were just running through the agency trading desk.”

Enhanced real-time optimization capability  Once improved proficiency in in-house data management and targeting is achieved, hands-on optimization helps squeeze additional performance from campaigns. And internal optimization can reap even more productivity from media investments than outsourcing, contends one financial service brand: “The tweaking in real time in the course of the execution of the campaign was really the main reason we brought it (programmatic) in house.” Campaign volume and complexity of optimization can fuel some marketers’ reluctance to outsource the optimization function. For example, the financial brand actively runs several multi-variate A/B tests and between 15 and 20 different in-channel optimizations per month. The prospect of handing this task over to a third party prompted the brand to say, “when you’re talking about granular optimization, it has got to be in house.”

Cost efficiency and transparency  Enhanced cost efficiency of operating an internal programmatic capability, versus paying fees to media agencies, is another catalyst for in-housing programmatic buying. 38% of the brands in the IAB survey mentioned cost efficiency as an objective of in-housing. And the industry experts we spoke with cited a net gain when reallocating past fees for outsourcing to staffing costs for internal programmatic talent. Essentially, the transition permits the brand to fund internal programmatic talent which then results in more dedicated control of placement and targeting, which, in turn, contributes to ROI. And transparency provides a deeper understanding of how much margin media agencies pass on to brands for services performed. Transitioning to programmatic imposes a discipline on brands to more closely scrutinize resource allocation since the brand takes on some of the tactical ad placement duties of the media agency. Fees for third-party ad serving, measurement and reporting are more closely examined, for example. As one CPG brand states, “the agency is margining specific pieces around the edges of an AOR contract. And you don’t know what those are until you literally review the details with the agency.”

Site placement transparency: brand safety and placement tactics – Programmatic buying speeds up placement execution and enhances targeting opportunities across a wide diversity of digital properties but limited transparency into ad placement detail causes concern for advertisers on many fronts. The previously mentioned ANA study found that only 40 percent of respondents were comfortable or very comfortable about the transparency they receive with their programmatic media investments. Another third of survey takers were uncomfortable or very uncomfortable. Those who said they were uncomfortable mentioned factors including hidden costs, too many intermediaries, and uncertainty on where ads actually run or brand safety.8 “Brand safety concerns have led to a shift to ‘programmatic direct buys,’ where digital media buyers can purchase specific inventory directly from a publisher like The New York Times if they want to lock in a price on ads they know they’ll want, or to make sure they’ve got the right placements for a planned campaign.”

8 Association of National Advertisers, December 2017, The State of Programmatic Media Buying
9 Association of National Advertisers, December 2017, The State of Programmatic Media Buying
In-housing programmatic buying would provide advertisers more detailed transparency on when and where ads run. In addition to monitoring for brand safety, advertisers need to check for content relevance and overall site quality as part of placement optimization. One brand interviewed mentioned that in-housing helps on all these fronts “because without the visibility of an agency’s optimization efforts and an understanding of what they’re actually doing, I don’t know that they’re ever doing their best to maximize performance versus to maximize spend at a good performance.” Ironically, in-housing programmatic may have little impact on publisher rates that were in effect while the process was outsourced to media agencies. Presumably, media agencies are likely to command discounted rates due to their high volume of activity across multiple clients, however, one brand interviewed for the study said that lower rates are achievable for the asking: “many brands are incredibly scared but don’t know that they have the ability to just ask for the discount. So, when we cut our deals, we absolutely ask for the best rate in terms of any guaranteed programmatic IO deal that we’re going to do.” If brands can pay discounted rates by going directly to publishers, that provides additional incentive for in-housing.

**Full accountability and focus on brand goals** Another motivation for in-housing centers around the notion that internal programmatic resources are more focused on driving revenue and profitability for the brand while a media agency partner, for example, must balance these brand goals with its own need to make money. Analytics and optimization, for example, is one area that requires moderate to heavy labor intensity and if the media agency can’t meet their revenue margins while commandeering this process, the effort might suffer. As one CPG advertiser puts it, “data and analytics is a black hole between the DSP and the advertiser at the agency. And the data never really gets through, because the agency doesn’t want to mess with it. They will if you ask them, and then they’ll say that it costs more.”
Challenges to Programmatic In-Housing

In-housing programmatic offers considerable potential upside to brands by improving ad performance, ROI and cost savings. But the road to in-housing can put a crimp on time, resources and cause organizational disruption. Following are the critical challenges that were uncovered during our conversations with industry leaders:

Organizational buy-in  “It takes a village” is a suitable mantra for successfully in-housing programmatic buying. First, there must be management support and directive substantiated by an initial feasibility plan to justify in-housing time and resource requirements. Next, everyone in the organization must come together to achieve plan execution. But there is bound to be some change resistance that’s consistent with human nature as staff members depart from their routine comfort zones. One such area, for example, is becoming directly accountable for duties previously performed by the media agency. One financial services industry leader interviewed recalls that the introduction of programmatic spurred in-housing of media strategy and planning across several autonomously-run lines of business. However, some managers preferred to continue to rely on agencies in case campaigns underperformed."

Time commitment  – Ideally, standing up an in-house programmatic capability is a well thought out, deliberate process that requires about one year to achieve, based on industry leader feedback. Here is a step-by-step account from a financial services interviewee:

•  “I joined the organization a year ago exactly. I started in May. By July 2017, we had most of our contracts essentially at legal readiness to transition the programmatic relationships from the agencies and bring in all of our own data, so we took control of that.
•  “I had the team staffed by the end of the summer. I had our DMP launched in October, which kind of already started before I got there but had some legal hurdles, which I had to push through.”
•  “We started collecting digital data end of the year.”
•  “We built a matching process for internal IDs through the DMP that was completely anonymous and launched that officially in January and started collecting offline data over the past year, about February, and started our first campaign execution at the beginning of the year, more on a test basis”
•  “as of now (April, 2018) we are running any new campaign that launches that has programmatic, that is non-brand based, so anything that’s product or target or conversion based is now running through our platform.”
•  “Search has been in house since before I came in, and we just merged the teams together. So, our entire search budget and now 100% of our programmatic tied to non-brand campaigns is now delivered by our team, but our goal is that eventually, brand campaigns will be part of the delivery as well.”

For some brands, completing the first year of programmatic in-housing marks the beginning of a longer journey, a time to take stock of advertising and financial performance and evaluate the current and future mix of in-house functions. One hospitality brand we spoke with stressed the importance of maintaining the processes that triggered first-year gains in ad performance while considering what additional in-house functions would further drive the business: “We have made a lot of progress in the last 12 months. We are happy, at least for the investment that we are putting into it (programmatic). And that brings us to the next level of in-housing, by expanding ad tech capabilities to increase customer business at a more effective cost.”

Contract Coordination  – Executing programmatic ad placement involves a brand coordinating the process across a potential string of multiple media agencies and DSPs. For example, one hospitality advertiser brand that was interviewed identified as many as nine entities to execute its programmatic buys: two for a branding base of national media, five or six for lower-funnel programs and two direct-to-publisher travel sites.
Tom Triscari, co-founder and managing partner at programmatic consultancy Labmatik, characterizes sorting out contractual relationships as the first step in the in-house process: “While in-housing is often positioned as ramping up headcount, it is first and foremost about rearranging contractual relationships such that external parties can get better at servicing the marketer’s unmet needs.” Triscari depicts a future contract state whereby the advertiser sits at the center, coordinating all contracts in the programmatic ecosystem. This additional contract coordination would call for more internal advertiser resources to manage the process so, the likely path for the immediate future is one where the brand undertakes select contract coordination, primarily with DSPs.

**Talent Recruitment** – Depending on the depth of internal capability requirements, programmatic media specialists must be hired to provide overall strategy and trafficking of ads, two internal positions mentioned as base-level requirements during our leadership interviews. Recruiting this talent can be costly and challenging. Marek Lacina, senior display manager at Kayak, recounted the travel website’s experience in recruiting talent and standing up an in-house programmatic buying capability: “It took us almost a year to find the right people, to optimize the team, optimize the channels and to be happy with the results.”

According to Matt Prohaska, a brand looking to in-house should ask the following questions to help put talent in place:

- Who internally is available to get “trained up” quickly?
- Are we located in an area that can attract talent?
- Do we have the in-house or external recruiting talent to find the proper staff?
- Can our organization support the salaries of this specialized skillset?
- What is the transition schedule when removing duties from our agency/managed service partner?

10 Ad Exchanger, April 30, 2018, Tom Triscari, Programmatic: A Series Of Cascading, Interconnected Contracts
11 Ad Exchanger, March 29, 2018, Inside Kayak’s Journey To Bring Programmatic In-House
Operational Impact and Training – In addition to recruiting programmatic talent, a brand should assess how programmatic buying functions will be synthesized with current ad transaction systems and procedures. Some examples of how programmatic would impact operational change include:

- **Evaluating programmatic buys along with non-programmatic transactions,** (e.g., trade desk, exchanges, direct to publisher) in order to effectively manage entire digital campaigns; this might mean analyzing the duplication of consumer target reach across all digital advertising purchases, for example.

- **Deeper immersion in DMP resources,** to fully leverage programmatic targeting capabilities. In-house data analysts need to become more familiar with programmatic processes to help connect the dots between DMP data and ad targeting and tracking. As captured in an article appearing in the Drum, “a brand may have a strong analytical data team, with data management experience, yet it doesn’t have the talent or knowledge for programmatic optimization.”

- **Integrating ad trafficking/operations,** if this function is taken in-house, ad operations staff must be integrated with media and DMP staff for tagging and tracking ads.

All of the above requires training and orienting staff members which can be sourced from both internal and external experts. According to one brand from the hospitality industry: “Our in-house talent is certainly a great resource to train others but outside organizations such as DMP partners or Google might be solicited.”

12 The Drum, February 14, 2018, Atila Jakab, Full programmatic in-housing is the wrong answer to the right questions
The Degrees of Programmatic In-Housing

Programmatic in-housing can be defined in degrees of programmatic capability immersion rather than absolutes. The quintessential in-housing set up, where an ad tech stack sits within the brand organization along with media strategy, ad operations, optimization and stewardship is relatively uncommon. Instead, the level of in-housing is distinctly marked by a varied mix of programmatic capabilities that tie to internal subject matter expertise, resources, organizational complexity and digital and data acumen.

While it’s challenging to neatly classify all the variations of in-house arrangements, some generalizations can be made about how programmatic in-housing is taking shape. Following are insights into how brands are divvying up internal versus outsourced programmatic functions, based on findings from the IAB survey of U.S. brands that are involved in programmatic in-housing:

• **Outsourcing is here to stay** – Brands are either currently working with or considering partnering as a means for executing virtually every programmatic function. This penchant for collaboration clearly indicates that most marketers prefer to be selective about which in-house capabilities they stand up versus going the full-service route, which would require extensive resources and may disrupt focus on current business operations.

• **Strategic functions are being drawn inwards** – Higher-level programmatic functions, including media strategy, establishing KPIs, data management and direct control of contracts with DMPs and DSPs, topped the list of tasks that brands would like to keep in-house. But the importance of outside collaboration for these more strategic functions was evident in that roughly half the brands indicated they would consider working with or are currently work with a partner. This partnership orientation implies that brands desire primary control in these areas but still require partner input from creative and media agencies, for example, who provide digital strategy insight within the context of the entire media mix.

• **Campaign analysis & optimization is at a crossroads** – Survey results signal that brands are sharing responsibility for campaign analysis and optimization with partners. But our discussions with industry leaders indicated that some brands would like more control over these processes, especially when leveraging DMP data to improve execution of both upper-and lower-funnel programmatic executions. This desire for greater control will likely be kept in check by in-house resource limitations and the need for specialized expertise provided by media agency or DSP partners, for example.

• **Technology initiatives are being outsourced** – Brands are more apt to tap outside partners for highly-specialized programmatic functions that are likely absent from existing in-house capabilities. Technology build-outs and ad operations, for example, were two areas with the highest incidence of existing partnership, perhaps reflecting the need for brands to control for excessive capital expenditures and talent recruitment when establishing in-house capabilities. Data science and algorithm development as well as education/training also represent specialty areas where partnership arrangements are either in place or under consideration.
Dividing Internal vs. External Programmatic Functions

Which of the following programmatic advertising functions are you, or would you consider working with a partner on instead of doing it on your own? (Among brands that in-house programmatic buying)

- Prefer to keep in-house
- Would prefer working with a partner
- Currently working with a partner

<table>
<thead>
<tr>
<th>Function</th>
<th>Prefer to keep in-house</th>
<th>Would prefer working with a partner</th>
<th>Currently working with a partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campaign strategy and direction</td>
<td>52%</td>
<td>30%</td>
<td>18%</td>
</tr>
<tr>
<td>KPI framework</td>
<td>51%</td>
<td>38%</td>
<td>11%</td>
</tr>
<tr>
<td>Data management</td>
<td>51%</td>
<td>37%</td>
<td>12%</td>
</tr>
<tr>
<td>Ownership of DMP contracts</td>
<td>49%</td>
<td>32%</td>
<td>19%</td>
</tr>
<tr>
<td>Publisher data relationships</td>
<td>49%</td>
<td>29%</td>
<td>22%</td>
</tr>
<tr>
<td>Ownership of DSP contracts</td>
<td>48%</td>
<td>33%</td>
<td>19%</td>
</tr>
<tr>
<td>Campaign analysis and reporting</td>
<td>47%</td>
<td>32%</td>
<td>22%</td>
</tr>
<tr>
<td>Campaign optimization</td>
<td>41%</td>
<td>38%</td>
<td>21%</td>
</tr>
<tr>
<td>Audience planning and validation</td>
<td>40%</td>
<td>42%</td>
<td>18%</td>
</tr>
<tr>
<td>Data science/algorithm creation</td>
<td>38%</td>
<td>41%</td>
<td>21%</td>
</tr>
<tr>
<td>Publisher inventory relationships</td>
<td>37%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>Training and education</td>
<td>32%</td>
<td>48%</td>
<td>21%</td>
</tr>
<tr>
<td>Building technology</td>
<td>32%</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td>Trafficking creative/Ad operations</td>
<td>29%</td>
<td>44%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Taking a closer look at contractual relationships, brands surveyed pointed to two primary executional models: 1) signing contracts directly with DSPs while tapping their agencies to execute campaigns and 2) internal teams that run owned or licensed ad tech software to programmatically buy ads. A third approach is to have a direct relationship with a DSP, who also serves the advertising.

Programmatic In-Housing Execution

How [are/were] you executing your in-house programmatic buying? (Among brands that in-house programmatic buying)

- Via a direct contract with a DSP, and will have our agency execute campaigns on our behalf: 58%
- Our own team running campaigns in-house (own or license the ad tech software to buy and place programmatic media): 48%
- Via a direct contract with a DSP who also executes campaigns: 16%

Source: Advertiser Perceptions Omnibus April 2018
Base: 65 U.S. brands that are involved in programmatic in-housing.
Five Things Brands Should Do

We asked our industry experts what key things brands should do when considering in-housing programmatic. Here are the five items that stood above the rest:

1. **Conduct a two-level internal assessment**
   - **Media performance** Brands should assess how digital advertising is making a contribution to their marketing objectives and how programmatic in-housing may help to improve that performance. Even if the brand is outsourcing programmatic buying, it pays to check the quality of the placements. A CPG advertiser told us that brands should be asking what portion of people exposed to a campaign received the desired ad frequency rather than the average frequency across all viewers: “The difference is huge, and savings on frequency control along can pay for an in-house program.”
   - **Internal cost benefit analysis** – After taking stock of media performance, brands should invoke a fiscally-disciplined assessment of how in-housing could impact costs and revenues. A financial services leader advised the following: “A good first step is just a matter of doing an economic assessment of viability of in-house versus using an external party, whether it’s a managed service DSP, a traditional media agency, or channel specialist agency. The economic assessment evaluates internal resources required to cover for all essential agency-provided services.”

2. **Create a ramp-up plan.** The in-housing process requires at least a full year to achieve operational readiness, including months of planning, organizational consensus, talent acquisition and platform testing. One industry leader recommends an extra-time allowance to help get the operation on track: “We opened up a center of excellence where we were given more runway than the traditional organization would have to innovate and test and learn.” Make a time and resource commitment by creating a structured plan that lays out key timelines and milestones that everyone can follow.

3. **Practice data centricity and integrate multiple data sources.** An organization must cultivate a state of “data centricity,” where people, platforms, partners and processes are brought together to apply audience data as an actionable insight. At their extremes, data-centric practices can be either insular to the organization (first-party data only) or blend in third-party sources. Either way, success depends heavily on developing DMP vitality and a steady, consistent dialogue between DMP managers and marcom and media team end users for best results. A financial services brand, for example, recommends holding tight internal reins on customer data to achieve superior results: “Make sure you own the data, that is crucial. Marketers have a lot of data in house and they cannot share all of it with external partners. Giving the digital marketing team access to everything provides more data points and allows them to understand how their advertising efforts are really driving business growth whereas, with external partners they won’t have full access”. Another marketer points out the benefit of integrating all sources of data to achieve success: “We wanted to have the ability to have full control of that data flow but really the introduction of our first-, second-, and third-party data into the DSP has been a real game changer.” A truly data-centric organization understands the trade-offs of working primarily with internal data versus blending with third-party sources.

4. **Establish a tech stack.** assess whether to stand up an internal operation and/or outsource to a partner. Ensure potential partners are a good match for the brand’s advertising strategies:
   - **Technical ability** – Flawless execution is ideal but keeping ad serving foibles to a minimum is more the reality. According to one industry leader, “the ad operations team, along with clean business practices, are the two chosen hallmarks when I look at a company to partner with.”
   - **Testing for proof positive** – Prospective partners should be tested prior to inking an agreement. A financial marketer states: “We’ll test them first on a managed service and have their team run it and then if we see performance in the first month that’s when we’ll get it to the compliance and contracts to bring that DSP in for self-serve. I always want to be testing. Always want to be learning.”

- **Media inventory** – “Technology partners need to have access to unique media inventory that others don’t; outside of Google, Facebook and Amazon, there are not many that can offer inventory at scale,” states a financial marketer.

- **Support commitment** – Partners should clearly understand the expected level of support. According to one financial marketer: “I always tell vendors that if I’m losing sleep at night because a program isn’t operating as it should be I want to make sure that they’re also losing sleep at night.”

5. **Attract and retain talent.** Brands looking to in-house programmatic should assess who can quickly be trained internally, whether their company is located in an area that can attract talent and whether in-house or external recruiters have the proper skill set to get the job done. One financial marketer stresses the importance of getting talent selection right: “Make sure you hire the right talent because building a tech stack and capabilities in-house is just half of the battle. If you don’t have the right talent then it’s not going to work.” Another interviewee emphasizes the importance of talent retention: “So, I think that the one no brainer is staffing. Are you able to attract the right talent and also are you able to retain that talent? A CPG brand adds, “If you bring someone in-house and they leave, the intellectual capital goes out the door and who’s going to run your media for you?”
Appendix
Methodology

IAB Programmatic In-Housing Survey
• The quantitative results are based on Advertiser Perceptions Omnibus Survey fielded in April 2018.
• 119 U.S.-based brand representatives participated in the survey. The respondents represent media decision makers across all titles and 16 major ad categories.
• All are qualified as involved in making digital, television, mobile, radio and/or print media decisions.

IAB Programmatic In-Housing Thought Leadership Interviews
• Gerard Broussard of Pre-Meditated Media, LLC conducted 8 one-on-one thought leadership interviews with advertisers and consultants that oversee and manage programmatic media buying and selling capabilities.
• The interviews lasted 30 minutes long and were conducted between April and May 2018.

IAB Programmatic In-Housing Report Development
• Pre-Meditated Media, LLC, authored the study by integrating insights from the Advertiser Perceptions Omnibus Survey, Thought Leadership Interviews, industry research and other subject matter content.

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• Hospitality brand B

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In response to demand from our members and partners, IAB has created an exclusive, comprehensive training for buyers and sellers that provides in-depth knowledge of programmatic technologies. This class will help you:

- Develop advanced fluency in programmatic technologies and tools
- Strategically assess investments in programmatic solutions
- Immediately apply best practices to day-to-day management of campaigns and inventory

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