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THE BUILDING BLOCKS OF PERSONALIZATION

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WE LIVE IN THE age of the consumer. Consumers willingly share their information in exchange for more personalized and more convenient experiences. Among the hundreds of consumers we spoke with about their attitudes toward brands, data, and privacy, one customer told us, “I may not have chosen to live in a world where brands have so much information about me, but they do, and I expect them to make my experience easier, faster, and better.”

Consumers expect to be recognized on every channel, and they assume that any experience they initiate on one channel or device can be picked up right where they left off when they switch to another channel or device. They also expect to be able to interact with a company 24/7—whenever it’s most convenient for them.

But as companies try to accommodate their customers’ expectations for a personalized experience across channels and devices, they are having difficulty executing because of the increasing number of technologies

and the added complexity involved. Marketing organizations need to take a holistic and agile approach to evaluating, planning, implementing, and optimizing the collection of personalization-enabling building blocks that make up their marketing technology stack. (See the exhibit.) By following a set of steps to declutter the stack, they can reduce complexity and deliver exceptional personalized customer experiences.

Increasing Personalization, Increasing Complexity

Companies that want to differentiate themselves from their competitors by delivering personalized experiences to new and existing customers face a number of data, technology, and process challenges:

- **The amount of data available to personalize customer experiences has exploded.** It’s not only demographic and transaction data that’s needed, but also data concerning interaction history, behavior, location, and preferences, to name just a few. Because it is

The Marketing Technology Stack



Source: BCG analysis.

easy to spend millions on data integrations that pull all this information together in a data lake, prioritizing the most valuable types of data—those that drive the highest-value use cases—and identifying the required latency for each data element are critical. However, most use cases require real-time information for only some of their data elements, so not everything needs to be built with real-time capability.

- **Managing channel interactions can only be done using specialized tools.** The various channels or media often require specialized technology—tools to personalize email communications, tools to personalize web pages, tools to manage social media content and interactions, tools to support customer service agents in a call center, tools for delivering personalized experiences in physical channels such as stores, and more.
- **Most of the tools don't talk to each other.** Many of these required tools are

not designed to interact with one another, making it very challenging to orchestrate a multichannel experience.

- **Communicating with customers across channels calls for multiple types of content.** This variety is causing major process challenges for marketing organizations when it comes to producing, storing, and managing all the necessary digital assets. (See “How Digital Leaders Are Transforming B2B Marketing,” BCG article, April 2017.)
- **The interactions that take place across channels must be measured and optimized.** Marketing organizations face an incredibly complex task in measuring and optimizing the effectiveness of each customer communication. Not only do interactions take place across several channels, media, and devices; sometimes a single customer can have multiple digital identities.

In order to cope with this complexity, marketing organizations have been adopting

many new technologies. They include tools to integrate disparate sources of data, manage interactions across different channels, measure the effectiveness of different interactions, and generate the insight required to optimize spending and drive performance. According to Gartner estimates, in 2017, CMOs spent more on technologies than CIOs did. Indeed, as Anita Brearton, CEO of the marketing technology firm CabinetM, notes, a medium-size B2C company uses an average of 19 tools in its marketing organization; a larger company uses even more.

But as marketing organizations deliver increasingly personalized experiences, their costs—to acquire, manage, and maintain the skills needed to support all the necessary tools and platforms—go up. When it comes to planning, designing, and orchestrating campaigns that cut across multiple technologies and teams, operational complexity also rises. In the meantime, given the time required to set up any campaign, the agility of the organization suffers. And because it is not always possible to orchestrate a multichannel experience (or to harness every opportunity to provide one), despite a marketing organization's best efforts, the customer experience can still be a poor one.

Marketing organizations are left wondering how they can simplify this technology ecosystem and, in the process, reduce the cost of offering a personalized experience. With respect to the marketing technology stack, they want to know not only which personalization-enabling building blocks they need but also how to build the stack itself. They want to know how to identify, assess, and select the personalization solution options best suited to their organization—and what best in class looks like.

Decluttering the Stack

Choosing the most appropriate personalization-enabling building blocks to create a marketing stack is key to its ultimate success. The exhibit, which shows how the building blocks work together, makes clear that it's not about having the most power-

ful tools, but having the most targeted and efficient tools. Anything else serves only to clutter the stack and weaken its effectiveness. To declutter the stack, organizations should take several key steps.

Identify the key use cases that the technology must support. Organizations should take an agile development approach led by use cases, which will help drive the business priorities. (See *The Agile Marketing Organization*, BCG Focus, October 2015.) Marketing technologies lend themselves well to agile development. And the marketing process itself is iterative in nature, with optimization and improvement at every cycle. The development of a marketing technology stack should follow the same pattern.

Different use cases or contexts may emphasize different aspects of the stack and hence lead to different choices of vendors. If a bank wants to increase customer offer conversions by nurturing leads across multiple channels and touchpoints, for example, it seeks a vendor whose technology facilitates multichannel interactions. Use cases also drive business priorities when it comes to the implementation plan. For example, a health care provider looking to attract new customers through the publication of educational materials prioritizes content management capabilities that enable it to publish content across multiple channels and media platforms.

Develop an end-to-end marketing technology map. Organizations must look at the personalization ecosystem they're trying to create in its entirety, from data management to advanced analytics to customer engagement, all the way through to measurement and optimization. Marketing resources are generally organized by specific skill (analytics, for example, or campaign management) or even by channel (social or search, for instance); as a result, they can end up looking at the ecosystem in a siloed way. Although optimizing for different elements is important, the whole is greater than the sum of its parts. An understanding of how the different parts interact and how to inte-

grate them to support personalization is what differentiates high-performing marketing organizations from poorly performing ones.

Choose a building approach that suits the organization's needs. Broadly speaking, there are two approaches to building a marketing technology stack: the first is to select the best-of-breed tool for every (or nearly every) individual function, regardless of the vendor; the second is to implement an integrated-marketing cloud suite. Each approach offers advantages and disadvantages. The best-of-breed approach brings the best functionality available to each element, but at the cost of suboptimal integration. Implementing a suite, on the other hand, provides better integration across the different elements but will likely compromise functionality in certain areas. Major marketing-suite vendors such as Adobe, Oracle, and Salesforce continue to develop their offerings and integrate additional components. However, none of the current marketing cloud suites cover the personalization ecosystem from end to end, so companies will continue to buy from multiple vendors and/or build some of the stack elements themselves.

Create a blueprint and pick core vendors. It is not necessary for an organization to build the entire stack before it executes any marketing activities—in fact, it's not recommended. Companies should set a vision and a path forward so that the stack can be built incrementally, in a way that constantly pushes the organization toward all of its personalization goals. Having a clear direction supports the development of an end-to-end stack that is easily managed and integrated. Just bear in mind that making directional changes along the way for “core components” can be costly; the cost of switching providers, for example, can be very high.

SaaS cloud-based solutions, which support an agile approach, are becoming the standard for most parts of the stack. Many organizations anchor their marketing stack on a main cloud suite and augment it (via buy or build) with additional components to sup-

port specific functions on the basis of business context and priorities. While there are many marketing automation, content management, and channel delivery options available that perform well when configured correctly, one of the most difficult decisions is how to set up the analytics engine. Given the value of optimizing the “brain” of the marketing tech stack, instead of opting for a “black box” engine that can be quickly deployed but is more difficult to optimize, large organizations find it worthwhile to build or buy a set of solutions that gives them control over the inputs to the analytics engine. This does not mean that they must invent the algorithm frameworks from scratch (open-source libraries for most of these frameworks are readily available), but it does mean that they must design the analytics engine so they can customize the algorithms, data features, and business rules.

Build the marketing stack incrementally, through pilots. Key to any marketing organization's success is an iterative and incremental value delivery approach that is based on multiple pilots. As components are added—and related costs are incurred—the value derived from the implementation of each new use case exceeds the cost of the components, effectively paying for the implementation along the way. This enables the CFO to manage a stage-gate approach to incremental investment as the value is proven.

Going Beyond the Technology

Organizations must also focus on developing the resources, skills, and processes needed to extract the intended benefits from the new assets. It is very easy to embrace the value proposition of a new technology, implement the technology, and then never derive any value from it. Failures are usually the result of applying old habits to a new technology.

Technology is only one of the essential enablers for a personalization marketing strategy or agenda; the right data, people, process, skills, and culture must also be in place along the new platform. For example, over the past few years many organizations

have implemented data management platforms—which act like warehouses that gather, sort, and store data for targeted digital campaigns—to augment their digital marketing capabilities. But have those organizations developed or acquired the media-planning resources and skills needed to extract value from these platforms? Likely not, and likely for various reasons (cost, inability to attract certain talent, or poorly defined needs, for example). But without the full complement of foundational enablers, the benefits of even the most personalization-focused technology can never be fully realized.

AS CUSTOMERS DEMAND personalized, cross-channel experiences in exchange for their information, marketing organizations face ever-increasing complexity and ever-increasing technology costs. Consequently, knowing which technologies are needed to support personalization-focused marketing strategies and having a clear plan for how to build the related capabilities have become top priorities for marketing organizations.

Mature organizations, in particular, know that this is not a one-off exercise; the marketing environment continues to evolve, and the technologies must change with it. With that in mind, best-in-class companies are establishing a continuous improvement process of evaluating, planning, implementing, and optimizing the marketing technology stack to support customer personalization. Some have also formalized the role of the marketing technology officer, who is responsible for charting the course and developing the personalization ecosystem required to support the marketing strategies. With the estimated number of marketing technology solutions now topping 5,000, organizations need to find ways to identify the few technologies that they really need to drive value. Regardless of who steers the course to technology-enabled personalization, every marketing organization needs to chart its course upfront—and to adapt as the landscape and customer needs evolve.

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