5 BEST PRACTICES FOR BRINGING TOGETHER ALL YOUR MARKETING DATA

Drive personalization and increase customer lifetime value by overcoming the fragmented-data problem.
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Why Building a 360-Degree View of Customers Is Powerful</td>
</tr>
<tr>
<td>3</td>
<td>Best Practice #1: Develop a Comprehensive Data Strategy</td>
</tr>
<tr>
<td>5</td>
<td>Best Practice #2: Identify Which Data Sources Are Needed and How to Ingest Them</td>
</tr>
<tr>
<td>6</td>
<td>Best Practice #3: Unify Data to Create a Single Source of Truth</td>
</tr>
<tr>
<td>7</td>
<td>Best Practice #4: Make Data Available to Nontechnical Users Across Functions</td>
</tr>
<tr>
<td>8</td>
<td>Best Practice #5: Prioritize Areas Where Advanced Analytics Can Have the Greatest Impact</td>
</tr>
<tr>
<td>9</td>
<td>Customer Spotlight: How Lilly Pulitzer Uses Snowflake to Power Personalized Experiences</td>
</tr>
<tr>
<td>10</td>
<td>Next Steps</td>
</tr>
<tr>
<td>11</td>
<td>About Snowflake</td>
</tr>
</tbody>
</table>
Why Building a 360-Degree View of Customers Is Powerful

Virtually every marketing organization is taking steps to become more data-driven, but considerable gaps remain between vision and reality. According to the seventh edition of Salesforce’s “State of Marketing” report, only 33% of marketers are completely satisfied in their ability to create more relevant experiences with customer data.¹

And customer data complexity is only increasing: according to the “State of Marketing” report, marketers expect a 40% increase in the number of data sources they use between 2021 and 2022.

For CMOs, a number of enticing business applications exist for harnessing data, including personalization initiatives that increase customer lifetime value, multitouch attribution models that reveal how much each customer touchpoint contributes to a purchase or conversion, and machine-learning algorithms that enhance customer experiences. But if marketing organizations fail to unify their customer data as a starting point, they can achieve none of these goals at scale.

This ebook describes five best practices to help unify marketing data and make it actionable for high-priority marketing programs. Here’s what marketing organizations need to do to become truly data-driven:

- Implement a holistic data strategy instead of addressing one issue at a time.
- Identify which data sources are essential and set up optimal methods for integration.
- Store the data in a platform that can support all analytics and customer engagement needs, at the same time, and give teams access to a single source of truth.
- Ensure that marketing data is accessible to nontechnical users across the company instead of limiting access to data scientists and analysts.
- Determine which data-driven initiatives are most important and ensure the organization is aligned on them.

¹ sforce.co/34x1yAk
BEST PRACTICE #1: DEVELOP A COMPREHENSIVE DATA STRATEGY

Marketing organizations across industries are increasing their investment in data-driven initiatives. According to research by the Interactive Advertising Bureau (IAB), companies spent $12.3 billion on third-party audience data and related services in 2020, a 3.3% increase YOY, likely nuanced by third-party not dependent on third-party cookies and identifiers.²

Even as they increase their spend on data and analytics, many marketing organizations still don’t have a comprehensive strategy. Instead, they leverage ad hoc, loosely coupled systems in an effort to infuse data into their operations. As an example, analysts often export databases to CSV format and then conduct analyses in Excel to extract insights for ad targeting. Processes such as these are essentially workarounds, causing repetitive manual work. Additionally, buckets of data remain in separate silos and can’t be accessed or queried in real time, which prevents personalization initiatives, multitouch attribution modeling, and other applications of machine learning from moving forward.

Because a data strategy is the essential scaffolding for a marketing organization’s data and analytics function, it should address five key areas:

- **Objectives:** Which users need access to data, and what are they trying to achieve? (Are they product managers working to improve customer experience, for example, or brand marketers who need to quickly adjust messaging to improve campaign performance?) It’s also important to establish how the success of data-driven initiatives will be measured, whether it’s in terms of ad optimization, improved customer experience, increased margin, or something else.

- **People:** In organizations without a comprehensive data strategy, data teams often spend the majority of their time on rote and repetitive "data wrangling" tasks, such as the process of transforming raw data to make it usable for downstream purposes. If marketing organizations want to become truly data-centric, they may need to recruit data scientists and analysts who are highly skilled at distilling insights from data as well as IT managers to make customer data available to those individuals. Another staffing question to address is whether to create a centralized data team or distribute data scientists and analysts across different functions.

² bit.ly/34oIMyP
• **Technology:** Marketing organizations need to identify which data sources they require, which is explored in more detail in the next section. They also need clarity on the storage, security, and accessibility requirements to support their intended data use cases. Lastly, they need to determine whether to build their own customer data platform or buy an out-of-the-box solution to activate their customer data. This choice will depend on the size of their company, the complexity of their customer information, and their business priorities.

• **Operations:** In order to keep dashboards and queries sufficiently up to date based on the specific needs of their users, companies need to determine what degree of data velocity to support. If data will be required to power customer experiences, such as a personalized “call to action” on a website, they also need to ensure that the serving infrastructure is production-grade so that its “up time” is comparable to that of the website’s. Companies also need to set a strategy for making real-time data accessible with proper security and governance in place.

• **Integration:** Is CRM, ERP, point-of-sale, or supply chain data siloed and outside of Marketing’s control? If so, the plan should address the feasibility and logistics of unifying different data types into one platform.

Setting a strategy that addresses all these issues may seem daunting, but marketing organizations don’t need to know everything up front. The important thing is asking the right questions—especially if organizations are only beginning to invest in marketing analytics. If they’ve already built out a data and analytics function, a comprehensive strategy can help to ensure that the teams, technology, and operations they’ve put in place are aligned with their core objectives.
BEST PRACTICE #2: IDENTIFY WHICH DATA SOURCES ARE NEEDED AND HOW TO INGEST THEM

Marketers now have an ocean of customer data at their fingertips, including purchase, point-of-sale, CRM, loyalty program, website traffic, social, product usage, and email and mobile app data. On top of that, data management platforms and other third-party brokers offer demographic data, life-event data, behavioral data, and more, which can help refine customer profiles and improve targeting—especially when paired with first-party data.

By zeroing in on the data sources required to advance specific objectives, companies can avoid complexity and expense they might incur by grappling with more data than they actually need. For example, companies may not need to ingest clickstream data from Google Analytics if they are using Adobe Analytics or another product as the source of truth for website behavior; ingesting data from both would be redundant, and the data might conflict.

Some customer data, such as purchase history, is stored in internal databases, but most data needs to be ingested from its original source, which can require considerable engineering resources for weeks or even months for one source alone. To avoid burdening engineers with ongoing data maintenance, marketing organizations need an ETL tool with prebuilt connectors to data sources. These solutions extract data from the original source (for example, Facebook or Adobe Analytics), clean it or change it into a useful form for the company’s purposes (such as converting full addresses into zip codes), and load it into the company’s data warehouse.

When companies choose an ETL tool, they can opt for an enterprise-focused solution, such as Talend, Informatica, or Matillion, or an out-of-the-box tool such as Fivetran or Stitch. This choice is ultimately between greater control and configurability versus a lower maintenance cost. An enterprise solution aims to let companies harness the full power of their data but comes with higher setup costs and ongoing maintenance. An out-of-the-box tool is easy to ramp up but far less configurable. For example, it may support ingesting from only a fixed set of well-known sources and make it impossible to build certain advanced or custom dashboards and interaction flows.

In the process of vetting ETL solutions, marketing organizations should also consider what percentage of their data sources are supported by prebuilt connectors and whether users can add new sources without requiring engineering help.
BEST PRACTICE #3: UNIFY DATA TO CREATE A SINGLE SOURCE OF TRUTH

Once marketing data is ingested, it needs to be stored in a single platform that can natively support both semi-structured data, such as JSON from a website, and structured data, such as entries in CRM fields, location data, and purchase history. The platform’s infrastructure needs to be sufficiently flexible and scalable to enable near real-time data integration, which is required for personalization initiatives, multitouch attribution modeling, and advanced machine learning. It also needs to provide a single source of truth in the form of clean, merged data sets that a variety of teams can use.

When organizations unify their data, they also need the ability to support concurrent workloads, which is difficult with only a fixed number of servers. If computing resources are under contention, data scientists and analysts can see their productivity collapse during peak usage hours, and they may have to wait a half-hour or more for a query to run.

The solution is a cloud data platform that can instantly scale up capacity to deliver more computing power on demand, freeing up teams to produce outputs as quickly as they can. Instant elasticity removes scheduling and data batching concerns, letting data scientists run complex models and nontechnical users access dashboards whenever they need to, with no “noisy neighbor” challenges.

Lastly, workload isolation is essential so that ingest jobs don’t interfere with user dashboards or, more importantly, customer experience if it’s built on top of the data platform.
BEST PRACTICE #4: MAKE DATA AVAILABLE TO NONTECHNICAL USERS ACROSS FUNCTIONS

To unleash the full ROI of their cloud data platform, companies need to think beyond the productivity of data scientists. Their platform should be accessible to a large cohort of less technical users across business functions, including Operations, Compliance, Product, Business Development, Partnerships, and, of course, Marketing.

There are numerous use cases for how a cloud data platform can help users outside of Marketing. For example, the work of compliance managers who must comply with GDPR by identifying and deleting every piece of information pertaining to customers upon customer request is dramatically simplified when all customer data lives in one place. Additionally, supply chain managers are able to predict future inventory requirements when they have real-time data on orders, saving the company money on warehousing inventory.

If a data platform is to cover a range of use cases and be adopted companywide, marketing, supply chain, finance, compliance, and other types of data needs to be unified with governance in place. Robust access controls to prevent data misuse are critical when sensitive information, such as the company’s financial performance or customer PII, is ingested.

It's important to keep in mind that legacy methods of moving data across environments for cross-team collaboration, such as copying files in FTP or cloud buckets and building and maintaining APIs, have myriad accessibility and usability challenges. They can also be unsecure, error-prone, and costly to maintain. Data analysts tasked with providing reports to nontechnical users can also become a bottleneck, since they have a high volume of requests to work through.

With a single, live copy of data in a cloud data platform that has secure data sharing capabilities, no data moving or copying is required. This eliminates lags that eat into productivity or make the data outdated by the time it’s delivered. Data can be made globally available to every team and user who needs it, but access is also governed and revocable.

To avoid accessibility issues, data needs to have a high-quality schema so it’s easy to approach, understand, and manipulate and doesn't require complex joins for everyday operations. For effective collaboration between teams and functions, it’s also essential to have a single source of truth; each user needs to distill insights from the same data in order to avoid conflicting results and data trust issues. Furthermore, different copies of data that reflect different states can have serious consequences. For example, efforts to comply with GDPR could be hindered if multiple copies of data live in different silos, exposing the company to legal action or fines.

To ensure nontechnical users have what they need, companies must proactively set up a self-serve strategy that makes visualization tools available. Marketing organizations specifically need a BI analytics platform, such as Tableau or ThoughtSpot, that can provide self-serve analytics to most team members.

Generally, the “80/20” rule applies to making analytics self-service for nontechnical users. If they can quickly access the data they need on their own 80% of the time, the effort has been successful. (The other 20% of the time, they may require help from an analyst to write a complex ad hoc query.)

To achieve an 80/20 balance, analytics teams must closely collaborate with business users to understand which operational dashboards and data sets business users need and identify how to make requests self-service through dashboards, canned queries, or pivot tables.
BEST PRACTICE #5: PRIORITIZE AREAS WHERE ADVANCED ANALYTICS CAN HAVE THE GREATEST IMPACT

Once companies have gotten a 360-degree view of customers via a single, live copy of customer data, they can drive engagement to increase customer lifetime value, optimize ad spend, reduce churn, and more. It’s important to prioritize outcomes up front and then communicate those decisions to the entire marketing organization to ensure that collective energy is channeled in the right direction.

Here are three of the most impactful applications of advanced marketing analytics:

ACCELERATING INSIGHTS ABOUT CUSTOMERS AND PROSPECTS

Marketing organizations can leverage advanced analytics to understand the unique characteristics of their best customers, which in turn provides the ability to do “lookalike modeling” to find more prospects who look like their best customers.

Marketing analytics could reveal, for example, that downloading an app is a much better indicator of lifetime value than purchase frequency or that customers who first come to a website from a search engine are more valuable over time than those who click a display ad to reach the website. By uncovering granular insights about best customers’ attributes and behaviors, marketers can better understand which factors and behaviors most directly correlate with higher retention and lifetime value and then prioritize campaigns accordingly.

CREATING MORE-RELEVANT, PERSONALIZED EXPERIENCES

Well-executed personalization initiatives can lead to significant jumps in loyalty, retention and, ultimately, customer lifetime value. According to McKinsey, companies that excel at personalization generate 40% more revenue from those activities than average players.³

Personalization can also improve customer experience. Through investments in machine learning, companies can build recommendation engines that tailor product recommendations for each user, increasing basket size.

OPTIMIZING AD SPEND

Advanced analytics can be used to refine targeting and make ad spend more efficient. Specifically, it sheds light on which customers should be targeted with what message—and how that should be adjusted per channel. This adjustment improves the effectiveness of search keyword bidding, lead scoring, and other tactics, which leads to smarter media buying and stronger paid-media performance.

A 360-degree view of customers and prospects also enables multitouch attribution modeling, which lets marketing organizations apportion credit for sales or conversions between all touchpoints along the path to purchase instead of giving full credit to the first or last touch—an outdated practice that doesn’t reflect how people actually shop online. Companies can then increase or decrease spend on each respective media channel based on how much it contributes to conversions.

By facilitating real-time decision-making, advanced analytics also makes people more efficient and productive. With up-to-date information on campaign performance, for example, brand managers can quickly reallocate ad spend to the best-performing channels and change targeting parameters to home in on prospects who convert at higher rates.

³ mck.co/34oXQoM
CUSTOMER SPOTLIGHT: HOW LILLY PULITZER USES SNOWFLAKE TO POWER PERSONALIZED EXPERIENCES

High-end women’s retailer Lilly Pulitzer evolved from being a wholesaler to having a primarily direct-to-consumer business with more than 60 retail locations. Their data and analytics teams used multiple systems, making it impossible to get a handle on all the data they needed at once and obtain the sought-after 360-degree view of their customers.

They had four primary sources of data: their signature stores, wholesale business, retail POS, and website. The data remained in silos due to varied data types, such as structured and semi-structured sources. To bring it all together, they implemented Matillion as an ETL solution to ingest data from the underlying databases, Snowflake’s cloud data platform as the single source of truth, and Looker as the BI tool to provide insights to nontechnical users.

This new architecture granted individual retail stores much greater access to customer data, enabling them to identify and more effectively engage top customers. For example, stores were able to distribute thank-you notes based on deriving customers’ net sales value from a list that was generated in just minutes and aggregated web and in-store purchases. And by integrating data from a new tracking pixel on their website, Lilly Pulitzer was able to connect their online and offline customer profiles, giving greater visibility into customer behavior across channels.
Obtaining a 360-degree view of customers via a data platform that acts as a single source of truth is a precursor for the most advanced analytics. It unlocks sophisticated data-driven capabilities such as personalization, multitouch attribution, and advanced machine learning that can give companies a competitive edge.

To ensure their approach to unifying their customer data paves the way for success, companies need to be mindful of five best practices:

- Develop a comprehensive data strategy that encompasses current and future use cases and accounts for people, process, and technology needs.
- Identify which data sources they need and which ETL solution is optimal to ingest them.
- Store the unified data in a single platform that can natively support semi-structured and structured data in the same system.
- Ensure the single source of data is inclusive of all types of users, and proactively set a self-serve strategy to eliminate bottlenecks.
- Prioritize data-driven initiatives based on what will have the greatest impact, and communicate those priorities across the organization.

Shifting a marketing organization to become truly data-driven requires a significant investment in both technology and change management. If the effort is well planned and executed, incremental revenue and reduced costs will justify the ongoing investment. But before companies can develop algorithms that optimize ad spend or personalize content, they have to plan carefully and ensure customer data can be accessed quickly, easily, and securely.
ABOUT SNOWFLAKE

Snowflake delivers the Data Cloud—a global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, organizations unite their siloed data, easily discover and securely share governed data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single and seamless experience across multiple public clouds. Snowflake’s platform is the engine that powers and provides access to the Data Cloud, creating a solution for data warehousing, data lakes, data engineering, data science, data application development, and data sharing. Join Snowflake customers, partners, and data providers already taking their businesses to new frontiers in the Data Cloud. Snowflake.com.