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Customer Data Platforms

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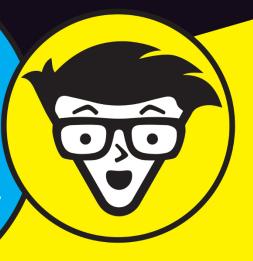
- Collect, analyse, and activate customer data
- Power smarter digital relationships
- Maintain privacy, security, and compliance

Dan Sullivan

Klaviyo Special Edition

About Klaviyo

Growing a business is complex. Klaviyo brings it all together. By unifying your ecommerce data in one place, you can understand your audience better, deliver personalised experiences, and learn everything you need to make your business smarter.

Everything works as one, accelerating growth and keeping you in control.

Our platform unifies all customer data and channels in one place, delivers unprecedented speed and time to value, and is built to be intuitive and easy to use so that every brand – regardless of size and expertise – can connect with their valued customers to grow more profitably and sustainably on their own terms.

klaviyo.com

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Customer Data Platforms For Dummies®, Klaviyo Special Edition

Publisher's Acknowledgments

Introduction

Marketing practices are responding to changes in industry and customer expectations around tracking online activities. This is driving the need to collect, analyse, store, and act on in-house data and the reduction in the use of third-party data-sharing services. How you manage this transition and adopt new technologies will greatly influence the success of future marketing efforts.

Customer data platforms are emerging as the technology of choice for marketing professionals. These systems collect and integrate customer data from multiple sources and, just as importantly, to analyse and act on that data. Marketers using customer data platforms have access to key performance metrics such as funnel analysis, recency, frequency, and monetary (RFM) analysis, and customisable calculations such as customer lifetime value. These platforms also provide back-office support with tools for data warehouse synchronisation, data transformation, governance, and personalisation.

This may sound like a lot of functionality, and it is. This book will help you understand how customer data platforms work and how you can use them effectively.

About This Book

By the time you finish this guide, you'll understand the benefits of customer data management platforms, factors to consider when choosing one, and best practices for integrating with your existing tech stack. You'll also have insights into how to leverage customer data platforms for managing customer identities, improving customer segmentation, personalising marketing, and using analytics to tune your marketing campaigns. You'll also discover key privacy, security, and compliance regulations for using CDP safely.

Foolish Assumptions

In writing this book, we made some assumptions about who'll be reading it. If you fit one of these general profiles, this book is for you:

>> You're a marketing professional tasked with designing and running marketing campaigns. You're familiar with third-party data collection and the challenges of using fragmented and bespoke tools for marketing. In all likelihood, you're looking for a more effective way of managing your campaigns.

>> You're a data analyst focused on marketing. Analytics such as audience performance analysis, funnel analysis, and RFM analysis are your bailiwick. You dream of having integrated tools that relieve you of the tedious and inefficient data integration work you spend too much time performing.

>> You're an executive trying to get up to speed on the changes in marketing technologies and processes. Your primary concern is building an organisation that understands your customers, grows revenues, and can adapt to changes in regulations.

Icons Used in This Book

This book uses icons in the margin to draw your attention to certain kinds of information. Here's a guide to the icons:

TIP

We use the Tip icon to highlight anything that'll save you time or money or just make your life a little easier.

REMEMBER

When we tell you something so important that you should commit it to memory, we mark it with the Remember icon.

EXAMPLE

We sprinkle the book with examples to help your understanding.

When we want you to avoid making a potentially costly mistake, we mark that material with the Warning icon.

Beyond the Book

In this book, you can discover more about the importance of customer data platforms. If you want resources beyond what this short book offers, visit `www.klaviyo.com` to discover more.

Chapter **1**

Introducing Customer Data Platforms

I n today's digital-first era, customer data carries multiple connotations. For businesses, customer information offers an incredible opportunity to better understand and target key audiences. But for the customers themselves, sharing this kind of information can be confusing and off-putting – even to the point that they outright refuse.

Legislation like the General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) set the stage years ago for businesses to adhere to strict data regulations. Today, their impact is clear. In the US, 35 of 50 states have considered introducing privacy regulations, while existing legislation like CCPA may become stricter. In 2023, the EU levied a US$386 million fine against TikTok for failing to protect children's privacy. All of this means that third-party cookie tracking is changing in a way that limits its usefulness for personalisation. At the same time, more and more tools are available, especially in the software as a service (SaaS) market, leading to more complex tech stacks and more fragmented data.

It's time for a consolidated, comprehensive set of services that can help with the full life cycle of acquiring, storing, unifying, managing, analysing, and acting on customer data. Enter the customer data platform (CDP).

What is a Customer Data Platform?

A customer data platform is a system that collects and unifies data from multiple sources at scale. It then shares that data with other systems of insight, like customer relationship management (CRM) and analytics platforms, as well as systems and tools for customer engagement, like marketing automation and ad platforms.

TIP Systems of insight and engagement can be native or external. CDPs that integrate with these types of platforms can bring huge benefits to operational efficiency and marketing performance.

REMEMBER Customer data platforms are complex systems. To be most effective and efficient, these systems need to seamlessly integrate data and provide robust functionality for things like segmentation, data management, automation, and analysis. CDPs that provide only a subset of these functionalities are likely to bring more complicated tech stacks, more manual integration, and more challenging analytics processes.

Combining systems for analysis and engagement

A CDP combines systems of movement and systems of storage:

» **Systems of movement** collect and integrate data. These systems are optimised to rapidly ingest large volumes of data while combining related data so that marketers, analysts, and other users have a cohesive and comprehensive picture.

» **Systems of storage** need to scale to capture increasingly large volumes of customer data. They also need to support analysis and query operations, which can put a heavy strain on computing and storage resources.

Collecting and unifying data

When we talk about collecting customer data, there are several data categories you might encounter.

Zero- and first-party data is data you acquire through direct interactions with your customers. This can include purchase history data you maintain in back-office systems, and interaction data you collect from web and mobile applications. Some of this data is demographic, like age and location, and some is behavioural, such as data about content viewed or links followed.

Second- and third-party data is data acquired from others. One of the challenges of working with second- and third-party data is that you may have different ways of identifying customers. This presents challenges to data integration. How can you have confidence that Customer A in one data set is the same as Customer A in a different data set?

Other operational challenges include working with missing or incomplete data, and mapping data to consistent formats and coding schemes. To maintain high-quality customer data, your integrating and unifying operations need to account for these kinds of challenges.

Manipulating and distributing data

Once distinct data sets are collected, integrated, and unified, the next step of CDP processing is making that data available to your systems of insight and systems of engagement.

With systems of insight, your focus shifts from collecting and integrating data to extracting information that can inform decisions about how you interact with customers.

EXAMPLE

For example, when integrating data, you may want to connect information about a customer's activity on a website with details about their purchase. When you have multiple examples of customers following a particular path through a website, you can start to dig into what distinguishes customers who make purchases after following that path and those who don't.

Extracting insights for better customer engagement

Collecting and storing customer data isn't the end goal of a customer data platform, but it is an important step in a multi-step model of CDPs.

Systems of insight

Systems of insight let you analyse trends in your marketing or business performance, visualise data, and understand your audience's characteristics. These analytic tools can be internal or external to the customer data platform. The same is true for systems of engagement.

Systems of engagement

Systems of engagement support interactions with customers. They can include marketing automation tools as well as customer service, direct mail, and advertising platforms.

WARNING Be careful when working with external systems that require data transformations before using the tool. For example, some marketing automation systems require an alternative data format to use data for marketing and may not be customisable to support a particular business model, like subscription models or drop models.

Why Customer Data Platforms Matter to Marketing

While important to understand what makes a customer data platform effective, it's also important to note the challenges that arise when working with data across organisational boundaries.

Let's look at some examples of how data can move across organisational boundaries, and how those patterns of movement are changing.

Tracking cookies were invented in 1995 and they changed the internet. Suddenly, digital advertisers had technology that helped them understand and cater to individual customer interests. Today, customers engage with and are tracked by brands through

multiple channels, apps, and websites. This data can be captured and stored in centralised repositories. In some cases, data from different tracking services are combined to build even more comprehensive data sets and insights.

Privacy and the limits of online tracking

While these practices proved effective in many ways, they also pushed the boundaries of what many considered reasonable data collection practices. In response, some companies started to change data collection policies. For example, some mobile device providers started to give users the option to limit the data that could be collected by apps on their devices.

Governments also responded with changes to consumer protection laws. Consumers gained additional controls and measures for managing their privacy. The General Data Protection Regulation (GDPR) protections include:

» The right to know about information collected and how it is used

» The right to erasure, also known as the right to be forgotten

» The right to object to some types of data processing, such as direct marketing

This combination of changes in government regulations and business practices has significantly lowered the effectiveness of mechanisms like cookie tracking. In response, businesses are developing new ways of collecting personal data that work within the boundaries of evolving privacy regulations and practices.

Data sharing is alive and well

With news of data protection laws and changes in consent requirements for collecting data, you might think the days of data sharing are coming to an end. Not at all. People visiting websites are routinely asked if they'll accept the use of cookies, including cookies for personalisation. Similarly, individuals can be asked if an app can collect information on a mobile device. Consumers are increasingly given choices about how their data is collected. The practice of data collection isn't coming to an end, but the processes for collecting such data are changing.

TIP

Instead of working with third-party data aggregators, marketers are setting up their own data collection through channels they already own, like their website or mobile app. By working with customers directly – for example, asking their consent to use tracking cookies or collect data using a mobile app – companies can earn customer data in ways that comply with regulations and meet customer expectations around privacy and data sharing.

These practices also reduce dependencies on third-party tracking and data sharing services. A natural effect of these changes is that you can expect to see improved personalisation leading to higher customer lifetime values and reduced costs of acquiring customers.

Knowing the Key CDP Features for Business

So, CDPs are a vital cog in the modern marketing machine. They're integrated systems for collecting, integrating, and storing data which will be analysed and used to inform interactions with customers using marketing automation and other personalisation services. While this description is important to understand, let's look at it through a different lens.

If you look at customer data platforms from a business perspective instead of from a technology orientation, you quickly realise that there are several features that directly support business objectives. These include the ability to:

» Create unified identities

» Create consistently personalised content across channels

» Centralise orchestration

» Enable collaboration

» Provide actionable insights

These abilities are possible on several core functions within a CDP. They include:

» Data ingestion

» Data unification

- » Data transformation
- » Data synchronisation
- » Governance
- » Personalisation
- » Analysis of key performance metrics (specific to certain CDPs)

Let's take a closer look at each of these.

Data ingestion

The first step to unifying data in one place is to ingest it into one platform. CDPs should be able to ingest data from any source through a variety of methods, like pre-built integrations, APIs, SFTP, webhooks, SDKs, and more. Most CDPs should be flexible enough to accept data from any source, though many require extensive data mapping as part of implementation.

Single customer profiles

Unifying data under single customer profiles is a core CDP feature – providing a single view of your customer's engagement with your brand so that you can get a full picture of each customer. The unification process includes *identity resolution*. This is the ability to maintain a single customer record, even when a customer's engagement uses different combinations of identifiers over time. This process creates one golden record profile (or identity) for one customer, regardless of engagement channel.

Data transformation

Data transformation is the process of improving data consistency so that the data can be accurately interpreted. For example, making sure "CANADA," "canada," and "CAN" all appear as "Canada" when entered into the profile property "country."

Even as enterprises become more independent of third-party data providers and depend more on their own data sources, there'll be a need for efficient and scalable data transformation services.

The main driver behind transformation services is how CDP source systems are designed. A website or mobile app is designed to support the way users want to interact with the system. They aren't designed to make it easy to analyse the data collected! Data collected in a sales system is optimised for the sales process. Data in an analytics system is optimised for analytic processes. They're not the same. Getting data from a form optimised for customer–facing applications to a form optimised for analysis needs data transformation.

KEY PERFORMANCE METRICS

Customer data platforms should support the generation and analysis of key performance metrics. These are measurements that inform decision-makers about a variety of characteristics of customers, groups of customers, and costs associated with different customer-related activities. These key performance metrics support consistent personalisation across channels.

Audience comparisons

Customers naturally form groups of individuals with similar character-istics. Marketers may treat different groups as different audiences and assess how well campaigns and other activities affect customer behaviours.

For example, two different groups may receive identical solicitations but have markedly different responses. By comparing audiences and their performance, marketers can more efficiently tailor marketing messages to customers based on the various audiences or segments they belong to.

Funnel analysis

The sales process is often depicted as a funnel-shaped journey with a wide opening at the top that allows for the entry of a large group of potential customers. From there, the funnel narrows until it reaches the smallest part at the bottom where you're left with customers who actually make a purchase.

Funnel analysis helps you better understand what happens at each level of the sales process. This can, for example, help you identify characteristics of a sales prospect that will likely lead to them leaving the sales process without purchasing. If you can adjust the sales

pipeline process to trigger such customers to leave the process sooner rather than later, you can improve the efficiency of your sales process.

RFM analysis

Who is your best customer? That can be a difficult question because you can evaluate customers in different ways. Is the best customer someone who:

- Recently made a purchase?
- Frequently buys from you?
- Spends the most on your products?

You could make the case for any one of these metrics, but an even better one is a combination of all three.

How recently (R) a customer made a purchase can be a factor in how likely they are to buy from you again.

How frequently (F) a customer buys from you is a good indicator of how likely they are to buy again in the future.

When a customer spends a high monetary amount (M) on your products, especially your high-margin products, you can reasonably expect them to continue to buy from you.

Customisable calculations

Many key performance metrics are well established, and their definitions are generally agreed upon – but that's not always the case. Take, for example, the definition of customer lifetime value (CLV).

A business's CLV will vary from business to business. Factors that impact a CLV are average order values, average days between purchases, average number of purchases, and so on. Notably, this data point will be a prediction that will have a margin of error and work best when averaged over many customers, and is not expected to be exact for any single individual.

Whether you focus your key performance indicators on well-established metrics or less mainstream calculations you prefer to prioritise, a customer data platform should be capable of supporting all of them.

We talk more about key performance metrics in Chapter 7.

Data synchronisation

Maintaining unified identities and accurate data across systems depends on data synchronisation.

TIP Customer data platforms are well positioned for providing detailed and complicated analysis of marketing data. There are often business use cases for marketing data outside of the marketing organisation, especially if that marketing data can be integrated with other data, such as finance, inventory, and logistics.

Data warehouses are designed to support those use cases. A key feature of a customer data platform is its ability to function and integrate with businesses' larger data ecosystems, including data warehouses. Synchronising data from a customer data platform to an enterprise data warehouse is essential in these cases.

TIP For systems outside of data warehouses, like customer service, analytics, or CRM, CDPs should have open APIs to send data outbound or use webhooks to stream data in real time.

Governance

Data governance is a set of practices and procedures for ensuring the availability, integrity, confidentiality, and usability of data within an organisation. Effective data governance is important for ensuring compliance with privacy and other regulations. It also benefits businesses more directly by helping streamline and standardise data practices, improve data quality, and make data more accessible.

Customer data platforms provide a centralised point of control for many aspects of data governance with respect to customer data.

Personalisation

If there were one key feature of a customer data platform that might rank above the rest, it's the ability to effectively personalise interactions with customers. By analysing data, you can better tailor solicitation, offers, and online experiences to customers – but that depends on the ability to collect, store, analyse, and act on data. And for that, you need (drumroll . . .) a customer data platform.

Chapter **2**

Enjoying the Benefits of Customer Data Platforms

C ustomer data platforms are designed to address some of the most pronounced challenges in marketing, including prob-lems with acquiring, managing, and leveraging data, tam-ing complex technology stacks, and the need for data engineering and data analytics expertise.

With the right customer data platform, marketers can deepen their customer insights, personalise interactions with customers, and run more effective campaigns that satisfy business goals.

Understanding the Role of Customer Data Platforms in Marketing

Customer data platforms, if implemented properly, address three pervasive issues marketers face every day. These broadly span:

>> Difficulty accessing data for personalisation at scale

>> Data silos due to complex technology stacks

>> The need for data engineering and data analytics skills to leverage customer data

These aren't insurmountable issues; in fact, the right CDP can address them all.

Data visibility and access issues for marketers

Ask a marketer about their pet peeves when it comes to working with customer data, and they'll likely say:

>> Fragmented view of customers

>> Poor data quality

>> Limited access for personalisation

Fragmented view of customers

You have many sources of customer data but unless they're connected and unified, you don't have a complete view of the customer. And if you don't have a complete view, you won't be able to understand and act on that data.

Different kinds of data, such as demographic and behavioural, can give you some insights into customers, but only at a fairly high level. To reach a deeper level of understanding and segmentation, you need to integrate these different data sources to get that complete picture of your customers.

Poor data quality

Poor data quality comes in a variety of forms. Data about customers may be patchy, with some customers missing important

attributes. As bad as it is to be missing data, at least you can tell when it's missing. But when data is available but wrong, you may make decisions based on false information – this can be especially prevalent when integrating third-party data.

Why is it so hard to get accurate data? In some cases, incorrect data comes from poor data collection processes, such as having and using a standardised set of codes for an attribute. In these cases, better data management and governance can help. In other cases, errors can creep in during data integration. For example, when you combine data sets, you may use a value in one data set to look up corresponding values in another data set. One incorrect lookup value can introduce a whole new set of attributes from the other data set that are wrong.

Limited access for personalisation

Legacy systems often lack capabilities that support personalisation. In many cases, this stems from the way data models were designed, or more precisely, how they were *not* designed. That is, they weren't designed to support personalisation or segmenting across all data.

In addition, legacy tools are limited in their ability to connect to access data from a variety of sources. This can leave analysts and marketers with access to only a small number of data sources.

Complex technology – not fit for purpose

When you're struggling with data challenges, your technology stack should be well suited to those challenges. One of the most important characteristics of a fit-for-purpose technology stack is one that unifies data. At the centre of that tech stack is – you guessed it – a CDP centralising all data. That's how an effective CDP can eliminate the risk of data silos limiting marketers' ability to effectively analyse integrated data.

But tech stacks can be hard to use if they don't address the needs of your business, leverage the skillsets of your team, nor integrate data accurately. In addition, legacy tech stacks or simply tech stacks without a CDP often foster data silos and become expensive and difficult to maintain. In the end, resources that could be

better spent on marketing experiments and campaigns are channelled to supporting tech infrastructure that doesn't quite fit your needs.

Is there an analytics expert in the house?

There are many ways to analyse data, and different questions need different tools.

Ad-hoc query tools are helpful for exploratory analysis and giving you a better sense of the overall characteristics of your data. When you're comparing the effectiveness of campaigns, you need a consistent set of measurements and calculations that give you an accurate picture of the state of your campaigns.

If things are darkest before the dawn, then these challenges with marketing, technology, and analytics may leave you feeling like you're on the cusp of a new day. And you are!

Knowing the Benefits of Customer Data Platforms to Marketing

Comprehensive customer data platforms are designed to address the challenges we've outlined and, in the process, deliver significant benefits, particularly with regard to:

» Identifying customers and uncovering customer insights

» Personalising interactions with customers

» Optimising campaigns

Identifying customers and uncovering insights

Gaining insights into customers begins with identification and builds up to customer segmentation.

Identifying customers

Some interactions with customers include explicit details about a customer so that identification is straightforward. For example, when someone logs into an account or enters their email and makes a purchase, the identity is known from the time the customer signs in.

In other cases, a customer may be browsing anonymously. When that happens, you can still collect data about their activities and interactions. You may be able to use that data to identify a customer and essentially backfill your customer records with such data.

This kind of late identification depends on having an integrated and comprehensive view of customers so you can determine identities with a high degree of confidence, even if you don't have explicit details like a username.

Customer segmentation

The middle ground between a mass of indistinguishable customer data and individual customers is the highly useful land of customer segments. By creating customer profiles, you can group customers with similar profiles into segments, allowing marketers to understand who to message at the right time and with the right message.

EXAMPLE

By grouping customers into segments, you can analyse across groups. For example, you can compare channel performance by segment. This means you can see which are the best segments per channel and learn if one segment is, say, more likely to respond to SMS solicitations over email contacts. By grouping customers by their behaviours, marketers can effectively target hyper-personalised communications to a specific audience.

Segments are also helpful for spotting negative trends, such as low average order value (AOV). If you can segment customers into low AOV groups, you can then take targeted actions to remediate that problem. In the case of AOV segments, you could offer discounts on the purchase of multiple items to increase the order value.

Getting personal

We all learn at an early age that people are different. We have different preferences, interests, and patterns of behaviour. If you can identify and understand some of these differences, you can do a better job of tailoring marketing messages to resonate with individuals. This is the art of personalisation. With a customer data platform, you can turn this into a more scientific practice.

I bet you'll like this one

When someone knows you, they can probably make good guesses about what you might order in a restaurant or which film you might like to watch. Customer data platforms help marketers become helpful sources of personalised recommendations.

Recommendation engines work by analysing the characteristics of individuals and their choices, such as which brands or styles they tend to buy. They're also useful for spotting other patterns, like the fact that people who buy one type of product often buy a complementary product. Buying a new collar for your dog? How about a lead to go with it?

REMEMBER Customer data platforms can collect and activate large, diverse data sets that provide insights into far more combinations of product purchases than you could ever hope to spot with human reviews of detailed data. When you combine those insights about purchases with other data, like customer segments, you can start to build powerful tools for recommendations.

Which do you prefer?

Even with large amounts of well-integrated data, you may not have sufficient information to make decisions about how to optimise your offerings. That's no problem because you have the scientific method at your disposal.

TIP Experiments don't need to be complex, elaborate processes that probe the secrets of the universe. Just a simple test to see which of two pieces of text lead to better responses can be quite useful. A customer data platform can run these kinds of A/B tests and layer in new insights you couldn't glean from your existing data sources.

Campaign and automation orchestration

Another welcome benefit of customer data platforms is the ability to orchestrate and optimise your marketing with a variety of marketing automation.

Marketing automation helps marketers trigger automated messages, like a welcome email after someone visits your website or a reminder text if someone leaves without making a purchase. With a customer data platform, you can improve your ability to engage with customers across multiple channels and customise responses to customer behaviours.

You can use all the personal insights you uncover about your customers' preferences and shopping habits from your customer data platform analysis to add in specific messages or improve the timing of your automated marketing.

Customer data platforms address some of the more vexing challenges facing marketers with support for discovering customer insights, personalising interactions with customers, and optimising campaigns. But before you rush off to start shopping for a customer data platform, take a look at how to choose one (see Chapter 3).

Chapter **3**

Choosing the Right Customer Data Platform for Your Organisation

By now, you probably have a good understanding of what a customer data platform is and how it can help your organisation. The logical next step is to go out, find one of these platforms, and start using it. While we applaud your enthusiasm, let's take a few minutes to investigate the things you should consider when choosing a customer data platform – and then review best practices for integrating your new customer data platform with your technology stack.

Factors to Consider When Choosing a Customer Data Platform

Customer data platforms provide a wide array of functionality. This ensemble of capabilities means you'll probably encounter quite a few considerations when evaluating whether the technology is right for you. Consider how a customer data platform handles:

>> Data collection, unification, and transformation

>> Data analysis

>> Cross-channel marketing and advertising

>> Integration with data warehouses and other enterprise analytics platforms

>> Security and governance

>> The buy versus build decision

Let's start at the beginning with data collection, unification, and transformation.

Data collection, unification, and transformation capabilities

No single source of truth about customers exists until you create one. The process of creating one means bringing together data from a variety of sources. When evaluating customer data platforms, you need to understand how well the platform can collect data from diverse sources.

The collection process: What could go wrong?

The key to data collection is the set of connectors that access data from different source systems across your technology stack. For example, can the platform you're evaluating ingest data from your customer relationship management system? How about from your web application platforms?

Ideally, the answer is yes to all these questions along with all the other connectors you'll need. But this may not be the case. What are you going to do then? Will you develop custom connectors via

APIs to compensate for missing functionality? That may seem like a good option in the short term, but consider how you'll maintain it over time.

WARNING

You could develop a custom connector today, but what happens next week when the vendor that supplies that system decides to update their product in ways that break your connector? It's all too likely you won't be able to catch those breaking changes before they disrupt your production systems. If you do go down the path of custom connectors, plan mitigation strategies for operating while developers update and test those custom connectors.

Unification: A single view

The first step to unifying data is to codify the different ways you can identify a customer. Different source systems may use different identifiers or codes to refer to a single customer, so you need a processing step that determines the different ways you may refer to a customer. This process is known as *identity resolution*.

TIP

Identity resolution combines data about a single customer from multiple sources into a holistic view. This helps avoid creating duplicate profiles for customers, so you have a single view for a customer, regardless of the number of distinct data sources you use.

Transformations: The data refinery

When you collect information from customers, it can help to think of that data as a raw material. It's essential for you to gain insights into your customers, but that data needs refining to ensure accuracy and consistency when pulling segments, running reports, and uncovering insights. This is where transformations come in.

Just as you need a variety of connectors to access data, you need your customer data platforms to support a wide range of data transformations, including data cleansing, joining or linking data, and standardising data.

With data collected, unified, and transformed into single customer profiles, you can turn your attention to data analysis.

Data analysis features

The reason you collect data about customers is to glean insights. That in turn depends on your data analysis capabilities. Unless you're the kind of person with a penchant for do-it-yourself projects and have a degree in statistics, you should consider what kind of support a customer data platform provides for analytics.

Look for support for a variety of analysis types, including:

» Predicting the next purchase date, number of upcoming purchases, and the total amount of future spending

» Customer lifetime value

» Probability of churn

» A/B test experiment analysis

» The optimal time to send messages

» Customer lead scoring

You often find unexpected insights when analysing data. These can include information on how to best use multiple channels to communicate with customers.

Enterprise-level analytics integrations

When it comes to analytics, no CDP is an island. Or at least it shouldn't be. Customer data platforms should readily integrate with data warehouses and other enterprise analytics services in order to sync customer data with data from other business units.

TIP

Look for support for automated data synchronisation with data warehouses. Having connectors and the ability to move data into a data warehouse is essential. Also look for tools that allow for regularly scheduled data movement, as well as tools for verifying that data loads and other synchronisation operations are completing as expected.

Omnichannel marketing capabilities

Customers interact with companies across different channels. Someone might start interacting with your company with an email, continue that conversation in an online shop, before responding to a solicitation received by text message. This kind of omnichannel interaction is becoming more common.

TIP

When choosing a customer data platform, consider how it supports omnichannel marketing across every possible customer touchpoint, including capturing data at multiple points across the life cycle of customer interactions and orchestrating omnichannel experiences via sending infrastructure.

Security and governance

Customer data is an asset, but it's also a responsibility. Governments have created laws defining how personally identifiable information must be managed, and what rights individuals have over how their data is collected and shared. Industries, such as the payment card industry, sometimes complement government regulations with their own constraints on how data should be protected. Consumers have their own ways of encouraging the responsible use of data by choosing who they do business with; they reward those with good privacy practices through repeat purchases and avoid businesses that fail to secure their customers' data.

REMEMBER

When evaluating customer data platforms, consider how the systems implement and enforce data management policies. For example, in some jurisdictions, customers have a right to be forgotten, which requires data about a person to be deleted.

Data about a single customer can easily be spread over multiple systems, and tracking down and deleting all instances of a customer's data can be challenging. Having a single, comprehensive platform for customer data that automates and implements data management policies will go a long way in helping companies protect their data responsibly.

In addition to broad regulations that apply to all customers, individuals have their own preferences they expect to be respected. A customer data platform should allow for tracking and enforcing individual consent gathering and data use preferences.

Buy versus build

As you consider the requirements for a customer data platform, you may begin to wonder if you wouldn't be better off just building one yourself. This is a common question when evaluating software options. The initial cost of some software, along with limitations in the features of the system, can prompt organisations to opt out of a third-party system and use one they build themselves.

WARNING

Building software is challenging. Yes, it allows you to leverage your existing systems and implement the features that you want. But this is especially difficult when it comes to more advanced features, such as using machine learning to implement recommendation systems. Other unwanted characteristics of do-it-yourself systems include ongoing maintenance costs and the need to employ and manage a team of developers as well as support staff to help system users.

While it can be tempting to consider building your own customer data platform, the time, cost, and need for specialised expertise often make it an impractical option.

Now, imagine you've evaluated your options and chosen a customer data platform: it's time to integrate that platform with your existing tech stack. How should you go about it?

Best Practices for Integrating with an Existing Tech Stack

Your customer data platform will become your single most important tool for marketing to customers, but it won't be a silo. It will be integrated with other business systems. To maximise the benefits of these platforms, keep the following best practices in mind.

Identify weaknesses in existing systems

First, identify any weaknesses in your existing systems. If you're using siloed data stores and an array of different systems for gathering insights and automating marketing activities, you probably have fragmented and brittle processes that are inefficient and hard to maintain. Target eliminating those processes soon after acquiring a customer data platform.

Determine points of integration

Determine points of integration with data sources that will provide data to the customer data platform. Consider how data will flow from source systems and what transformations will be required. A customer data platform is a hub of information and an

integration point for multiple processes. Downstream processes will also receive data from the platform. Be sure to identify those and understand how data will feed to them and what operations will be triggered by activities in your customer data platform.

Understand data management and policy enforcement requirements

In addition to populating the platform with data, you'll also be specifying data management policies. This will require identifying which data is subject to particular policies. For example, customers who are European Union citizens or citizens of the state of California in the United States will be subject to policies that comply with those jurisdiction's regulations (such as GDPR or CCPA).

Determine key metrics and how they'll be calculated

Key performance indicators and informative calculations, such as revenue or customer lifetime value, will inform lots of customer interactions. It's important to determine the key metrics you'll use and agree on definitions for calculating the associated values.

By the time you've considered the features and functionality required for a customer data platform, evaluated your options, and mapped out a strategy of how to proceed while following recommended best practices, you'll probably have also thought about the deluge of data in your customer data platform. Chapter 4 explores how you can harness that deluge.

Chapter **4**
Collecting, Integrating, and Managing Your Deluge of Data

When you start implementing large-scale software systems, you're almost immediately confronted with a series of technical and data issues. The excitement of having a comprehensive platform to improve inefficiencies and bring new capabilities to your organisation starts to recede as the challenges of collecting, integrating, and managing a deluge of data come into focus.

Fortunately, well-established practices, tools, and resources can help you through this phase. Once you understand how to address these technical and data challenges, you'll be on the path from excitement about the possibilities a new customer data platform brings, to the point of having a functioning system in place and ready to go.

So Much Data, So Much Tech

You need to address several factors and aspects of customer data management as you plan to bring data into a customer data platform, including:

- » Sources of customer data
- » Out-of-the-box data integrations
- » Custom integrations
- » Analytics
- » Marketing orchestration
- » Process orchestration
- » Privacy, security, and compliance

Let's dig into each of these.

Sources of customer data

To populate a customer data platform with data, you start with an inventory of data sources – also known as your technology stack. Remember that a customer data platform allows brands to make sense of and see the value from their customer data across multiple platforms and data sources. You're enabling a platform that can ingest data from a variety of sources and store it in ways that make it readily usable by marketers.

EXAMPLE

Data comes from a variety of sources. In some cases, data sources are designed to collect information that customers actively share. For example, they may sign up for a newsletter or fill out a website form and tick a box with what products they prefer. This kind of data is known as *zero-party data* and is often transformed within the CDP.

EXAMPLE

Other data sources let you derive information about customers. Take, for example, data collected from a website that includes a history of clicks and interactions a customer performed while using the site. Individually, data points about which link a customer clicked on at a point in time isn't that informative, but a whole series of such data points is a different case. This series of data points tells a story about the customer's interaction with the site and provides insights into products they might have

considered and how they came to products that were actually purchased. This is known as *first-party data*. CDPs focus heavily on leveraging zero- and first-party data.

With different kinds of source data, you need various ways to bring that data into your customer data platform.

Out-of-the-box integrations

Out-of-the-box integrations are pre-built connections that make integration across tools seamless and cost-effective. They reduce or eliminate the need for personal maintenance and extensive in-house development.

Custom integrations

However, at times you won't have access to out-of-the-box integrations – this depends greatly on the CDP. In those cases, you have to develop custom integrations using APIs to collect and ingest data from source systems.

Custom integrations bring some of the same challenges we saw with building your own customer data platforms, although they're typically much smaller scale than full-blown data platforms. When developing custom integrations, consider:

>> How to identify specific data to be extracted

>> The format of the data

>> Access controls on the data

>> The performance impact of querying and extracting data on the source system

>> Quality control checks to ensure you get all expected data

>> Methods for recovering when a data extraction process goes wrong and needs to run again

Both out-of-the-box and custom integrations allow you to bring data into your customer data platform and enable the next type of functionality: analytics.

Analytics tech

For those who have it, integrated analytics tools are one of the key advantages of using a customer data platform. With

out-of-the-box and custom integrations to ingest data, you can collect and keep data up to date in your customer data platform, and with analytics tools built into the platform, you can avoid the need to separate tools for analysis.

Using integrated analytics also makes it easier to reuse analysis procedures and standardise on a single definition of key metrics. This helps avoid the problem of different people using the same term for a measurement but using slightly different formulas to calculate them.

Marketing orchestration

Marketing orchestration is a data activation capability of CDPs that lets marketers reach customers across multiple channels. For example, a marketer could use email, SMS messaging, ad channels, or onsite personalisation to communicate with a customer. Having this capability in your CDP will make your marketing processes faster and more effective.

Process orchestration

Before you can analyse your data, you must transform it so that it is consistent and accurate across your entire list. If you expect to run reports and generate messages to target audiences, you also need to have data in place and transformations applied. These are just a couple of examples of dependencies within marketing operations.

Process orchestration is an easily overlooked part of customer data platforms functionality. While integrations and transformations are essential features for any customer data platform you consider, orchestration is equally important for ensuring processes happen in order and successfully. It's also important to ensure operations are executed on time and repeatedly as needed.

Privacy, security, and compliance

Implementing a customer data platform involves creating policies and procedures for managing privacy, maintaining security, and complying with regulations.

When it comes to privacy, you need to understand the range of privacy options customers have, and how you can capture their preferences. For example, if a customer has the right to be forgotten because they live in a region governed by GDPR, you need a

method for the customer to indicate that preference, a process for executing that preference, and a tracking system to manage and ensure the operation is completed.

TIP

When it comes to customer data platforms, one of the most important security features is managing access to data. A best practice in security is known as the *principle of least privilege*. This principle dictates that individuals should have access and permissions sufficient to perform tasks associated with their role but no more. As you implement a customer data platform, it's important to consider the roles your organisation has and how they'll map to access controls and permissions in your various data management systems.

Closely related to access controls are other aspects of security and compliance, such as protecting data confidentiality. In addition to protecting the privacy of customer data, it's important to protect the intellectual property of your organisation. As you build your analytic capabilities and practices, you'll probably create proprietary techniques and methods that bring additional value to your data and analytic processes. Consider who should have access to that intellectual property just as you would consider who should have access to customers' private data.

Integrating All This Tech: How Professional Services Can Help

Customer data platforms bring a wide variety of functionality. Getting the most value from these systems typically requires an understanding of the implementation details of the system, as well as domain knowledge about marketing.

Vendors providing customer data platforms typically offer professional services to help their clients get up to speed and realise value from their systems. It's important to understand that you may need a range of services when deploying a customer data platform. Some vendors are user-friendly enough to not need professional services to implement.

At one end of the professional services spectrum is the set of services that's designed to help you collect data, implement data transformations, and integrate with your existing technology

stack. The need for this level of professional support should be minimal. A customer data platform should have components for integrating with data sources along with no-code or low-code transformations for mapping data to a form most useful for marketing. If you're spending money on low-level integration details, you won't have those funds for higher-value professional services.

Ideally, when you employ professional services, they'll help you optimise your campaigns, refine your metrics, and develop new insights into your customers, their segments, and industry trends.

Chapter **5**

Knowing Your Audience: Customer Profiles and Segmentation

Making a large-scale campaign feel like a one-to-one message is an art that marketers are constantly practising. Marketing messages must be scalable yet tailored – customers should feel seen without the impossible time investment of having to create individual campaigns for each prospect or customer. Fortunately, there's a happy middle ground known as *customer segments.*

With segments you can group people with similar interests, demographics, and behaviour into audiences and treat members of each segment similarly. Are you interested in fly fishing? Then don't be surprised if you and your fly-fishing chums suddenly start seeing offers for new gear right before the start of fishing season.

To use customer segments effectively, you need to overcome two key data management challenges. First, you need to work out

how to identify individuals and link diverse data sets that contain information about those individuals. Next, you need to formulate a set of groups, or segments, that help you efficiently and effectively develop offers and messages that resonate with members of the group.

Haven't We Met Before? Customer Identification

Getting to know your customers isn't as easy as it may sound.

The demise of tracking cookies

It wasn't that long ago that advertisers could depend on information collected by data collectors who used third-party cookies to track where people went online and what topics piqued their interest. If someone browsed around looking for a new summer look, it wouldn't be long before they saw ads for clothing that matched the styles they were viewing.

That practice was immensely helpful to advertisers and lucrative for those collecting the data, but enough people became uncomfortable with the practice that it may become impossible in the near future. Major tech companies are making changes to limit tracking cookies, and this is shifting a focus away from third-party cookie tracking to other means of collecting data about customers.

A new generation of customer data

Apparently, folk who like to work with customer data have a thing for numbers and have adopted one of the least creative naming schemes to make it into the world of marketing. Customer data is now typically classified as:

- » Zero-party data
- » First-party data
- » Second-party data
- » Third-party data

Zero-party data is data that a customer chooses to share with a company and is initiated by themselves. If they offer a product review, tell a company about their intentions to purchase certain types of products, or specify some other preferences, then they are providing zero-party data.

First-party data is data you collect directly from customers through your regular business interactions with them. Every time a customer fills out a form online or responds to a survey, you're collecting first-party data.

You don't collect second- and third-party data directly. Instead, this is customer data you acquire from others.

Putting together the pieces of the identity puzzle

Let's step back and look at where we are in the world of collecting customer data. The days of leaving tracking cookies on someone's browser are pretty much over. You now get data about your customers from a wide range of sources.

Deterministic identity resolution: Knowing for sure

You control some of those sources (zero- and first-party data) so you have substantial control over how you identify customers and prospective customers. You can, for example, assign a unique identifier to each customer and use that in your various systems, such as when you track sales, ship orders, or collect data from a customer who's logged into a website or mobile app.

EXAMPLE

When you have data sets with unique and reliable identifiers, you can perform deterministic matching. As long as the identifiers are entered correctly, you can match across data sets. Think of the human resources department in your company matching your staff record to your payroll records using your employee identifier or PAYE number. This kind of matching is the most reliable and the gold standard for identifying individuals and matching data.

You have less control over second and third-party data. The providers of that data decide how to organise the data and what identifiers to provide. If you don't have unique identifiers across data sets, then determining when data is referring to the same person becomes tricky.

Time for informed guessing: Probabilistic identity resolution

If you don't have established identifiers, you can still make use of the data you do have to determine when data is associated with an individual. For example, if you have two different data sets that both include:

» An address

» An age

» A gender

» An income category

you can be pretty sure, if all four attributes match, that you're talking about the same person. If three of the attributes match and one doesn't, you still might be talking about the same person, but can't be as sure.

TIP In cases like this, you can use statistics to assign probabilities to these kinds of matches. The more data you have that matches, the more confident you can be in your decision to link the data. This kind of probabilistic matching can work well in marketing cases that are one-to-many (such as advertising).

The benefits of matching customers across data sets

By matching customers across data sets, you can build more complete views of customers. For example, you can combine first-party data you have about customers and their purchase histories and combine that with demographic data from a third-party provider.

REMEMBER With accurate matching of data across data sets you can expect improved support for compliance and policy enforcement as well as improved accuracy of predictive models.

Improved compliance

In the case of compliance, it's important to be able to identify all data associated with a person, particularly when they've requested a change in the way their data is handled. Consider the right to be forgotten regulations. These aren't designed to allow customers

to have their data no longer used. If you had to delete all data about someone, the first step of that process would be finding all the data you have about them. If you can't identify their information, you won't be able to delete it.

Improved predictive models

As you increase the number and types of attributes you have available about customers, you can improve your predictive models. The more distinguishing features you can model, the more you can fine-tune. For example, you might have a model to predict if someone will purchase children's clothing in the next three months. You may predict that someone over a certain age isn't likely to purchase children's clothing; however, if you know someone's age and if they have grandchildren, then you can probably build a more accurate model for this kind of prediction.

With broad sets of attributes about individuals, you can also start to see patterns in groups of users or segments within your customer base.

You Belong Over Here: Customer Segmentation

Imagine how you'd have crafted an advertising campaign in the past when you had limited means of reaching customers. For example, you could place ads in a newspaper that had a readership around a major city, or use billboards for roadside advertising. You'd pay to share your message with large audiences, but many in those audiences weren't interested in what you had to offer.

You have far better tools today for getting your message to potential customers. *Segmenting*, or grouping customers according to similar characteristics, is a key part of contemporary advertising strategies.

Creating meaningful groups

Grouping customers into meaningful segments is a fundamental process in marketing. With these groups or segments, you can tailor campaigns to the needs or characteristics of particular groups.

The groups can be based on a wide variety of characteristics, including customers:

>> Who purchase infrequently

>> Who tend to abandon carts

>> With particular interests or hobbies

>> In a geographic area

>> In an income bracket

>> With or without children

>> Caring for both children and adult relatives

As you can see from this list, there are a wide array of ways to think about what constitutes a meaningful group for your specific business type and marketing goals.

Tailoring campaigns

In addition to being able to create custom segments based on whatever criteria make sense for your objectives, you can also customise campaigns to achieve specific goals.

Customer churn prevention

The last thing you want is to pay the cost of acquiring a customer only to lose them shortly after.

One group you should pay attention to is customers you think are likely to churn. If you can reliably identify them, you can cre-ate specialised communications and offers to prevent them from leaving. It may not be obvious why customers leave. This is why you need a customer data platform with data from a variety of source systems. With a rich set of attributes about customers, their behaviours, and demographics, and easy-to-use tools that perform analysis for those of us without PhDs in statistics, you can begin to see patterns that can help you identify customers likely to churn.

Personalising communications

You can personalise communications to different segments. Marketers may have different ideas of how to market products to millennials versus baby boomers. Subtle differences in regional slang and dialects or entirely different languages may also come into play, depending on if you market to a national or international audience. The more you know about your customers, the more you can tailor your message to them, and the more effective your campaigns can be.

Predicting customer behaviour

Churn is a particularly important behaviour to watch for, but it's just one of many behaviours you may want to monitor and mitigate. If you can predict when a customer is about to move to a different area, you can prepare offers tailored to help them settle into their new home. If someone has purchased three items, but not a fourth item that often goes along with the first three, you might want to make an offer that encourages the purchase of the additional item.

SEGMENTS DON'T WORK ALONE

Segments can be fluid and overlapping. This is one of their great advantages: you can define segments using pretty much any criteria you want. You also have more fixed dimensions or ways of thinking about customers. Customer segments can be combined with other dimensions you track and use for organising aggregate data. For example, customer segments can be combined with geographical regions, product categories, and across time periods to help you refine your data analysis.

Chapter **6**
Conducting Personalised Marketing Orchestration

When you work with a customer data platform, you have significant advantages over any competitor that doesn't. You have access to comprehensive, integrated data sets that give you a single, organised, detailed view of your customers. You have insights about demographics, online behaviours, purchase history, and a variety of other information.

In many cases, your customer data platform is populated with first-party data you've collected about your customers. Unless you share that data, it's yours and yours alone. This gives you a competitive advantage that perpetuates itself. With your first-party data about customers, you can hold more effective and personalised inter-actions that drive more sales, which in turn gives you more data to work with. Using data to market becomes a self-perpetuating process when you do it right. The trick is knowing how.

Two key aspects of marketing orchestration can help you lever-age the valuable data you've consolidated and integrated into your customer data platforms: marketing orchestration strategies, and using analytics to improve orchestration.

Let's look at each of these.

What to Do with All That Data? Marketing Orchestration Strategies

Driving marketing efforts requires a combination of building customer segments and activating or acting on your data.

Who are you talking to? Building customer segments

One of the things you want to do early when planning a campaign is decide who you're trying to reach. But to answer that, you need to know what your business objective is. You may be trying to:

>> Increase sales to existing customers

>> Drive the sale of excess stock

>> Expand sales in a geographic region

>> Launch a new product line targeted to a specific demographic group

>> Increase the average order value of sales

Identifying dimensions of segments

When you've identified your business goals, you can identify the dimensions or characteristics you want to use to group your target audience. If you're trying to drive sales of excess stock, you might want to segment customers into groups likely to buy those kinds of items. If your company just launched a new service for recently retired professionals, you probably want to group based on age, employment status, and income level.

Assessing data quality

The quality of the segments you create will be highly dependent on the quality of the data you're using. Assessing the quality of data is important, especially with regards to data you're using to create segments. You can run into problems when data is missing or inaccurate. Missing data is easy to spot, but inaccurate data is a bit more of a challenge.

WARNING

The problem with inaccurate data is that it may look perfectly reasonable at first glance. A customer with a birthdate in 1998 is perfectly reasonable unless they also have a graduation date of 1996. In addition to watching for missing data, you should look for internal inconsistencies within data. You may find that some data sources are more reliable than others for some attributes. This is where transformation comes in!

Reaching out to the customer: Activating data

With segments in hand and marketing content ready to go, it's time to reach out to your customers. Now, you have decisions to make about contacting customers, such as:

>> What channel will you use?

>> What tone should you take in your wording?

>> What should your primary call-to-action (CTA) be?

>> What time of day should the message be delivered?

These questions all need answers. You could consult an oracle for expert opinion about what channel to use, or what colour combination would work best for an ad. Unfortunately, unless you've executed the exact campaign before, no one can predict the campaign's efficacy.

Yes, many professionals have experience that's relevant, but you may be talking about a campaign targeting a narrow group of customers with a proposal that's never been tried before. How could anyone predict the results of such a campaign?

What do customers think about this option? A/B testing

When marketers are faced with questions about campaigns, they have a choice: make educated guesses, or experiment.

TIP

A/B testing is common in marketing because it provides valuable information and is inexpensive (if you have a customer data platform that supports A/B testing). With this method, you create two versions of a message, like a marketing email or text message.

The only difference between the versions is a single element, which is your variable. For example, you might send a message using two variations that highlight unique value propositions to see which leads to more opened messages or click throughs to learn more about the offer.

Delivering message and channel selection

A customer data platform can make a marketer's job much easier by supporting message delivery across multiple channels. Ideally, you can work with one platform to store comprehensive customer data, use A/B testing to evaluate options, tune your campaign, and then choose a channel for the message delivery.

Analysing experiment outcome

After a message is delivered, you'll want to know how the customer reacted. Did they even open your message? If not, you may need to work on your subject lines. If they opened the message, did they click through? And if they did click through, what happened next? These are all crucial pieces of data that can help you craft your messages.

The process of activating data includes experimenting with A/B tests to help you configure your campaign and craft your messages. You then leverage customer data platforms' delivery features to get your messages into the hands of your customers. As a final step, you collect data about customers' responses to your emails, ads, and other messages.

Next, you measure the effectiveness of each. How you measure effectiveness varies by what you're measuring. In the case of messages, you may measure open rates and click-through rates. If you're further along in the sales funnel, you might be more concerned with the number of actual purchases and the average order value. The data you collect becomes the fuel for your upcoming and all-important analytics.

Using Analytics to Improve Orchestration

The name 'customer data platform' can give the impression that these systems are used to collect and store data about customers in a narrow sense: name, address, demographics, and a handful of other attributes. It may also have some summary information

about past purchases. This isn't the case for all customer data platforms.

REMEMBER In addition to demographics and purchase history data, some customer data platforms can store, analyse, and act on information about interactions with customers that go beyond just record-keeping about purchases. You can collect detailed information about how customers respond to messages – all of them: the regular emails with updates and news, plus the SMS messages with last-minute offers tailored to the narrowly focused segment.

This wealth of data lets you not only evaluate your customers, but also the campaigns your organisation conducts.

Measuring the benefits of campaigns

If you know whether a customer opened a message or not, that helps you better understand how to communicate with them. Knowing how thousands of customers responded to a message can help you interpret what elements of your campaign should be repeated to continue growing your business.

TIP When you create campaigns, you should also define the metrics you'll use to measure the effectiveness of that campaign. A campaign is successful if it furthers the business objectives, but there may be other benefits as well. You can learn about the kinds of messages that resonate with customers, the best times to send messages, and other details that can inform your next campaign.

ASSESSING THE EFFECTIVENESS OF MESSAGES

As you assess the effectiveness of your messages, keep in mind that the results you see could be influenced by the content you send as well as the frequency of your messaging.

What makes effective content?

Effective content can be hard to identify just by reading text. When you send it to thousands of customers and you measure their responses, you can tell what content is well received and what isn't.

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You still may not know what's appealing (or not) about the content, but you'll know that overall, one piece of content is more likely to inspire the desired customer action (like making a purchase).

By a series of experiments each involving a small change, you can move your content from moderately effective to highly potent by acting on the results of your A/B experiments.

What is the optimal frequency of messaging?

Another factor you may want to test is how frequently you send messages. Ideally, you can A/B test with different frequencies of messages while keeping the content the same. A/B tests are most informative when you change one variable at a time and measure the impact of that one change.

Identifying areas of drop-offs

In addition to measuring the effects of changes to specific variables (see the nearby sidebar), you should also watch for drop-offs. This can happen independently of the variable you change. For example, you may try two different colour schemes in an ad and find the response rate in both cases drops. This is obviously unwelcome, but more importantly, it could be independent of the test you're running.

In this case, you may have sent so many messages that customers' enthusiasm for your brand no longer matches the frequency of your messages.

Chapter **7**

Delving into Analytics with Customer Data Platforms

Some customer data platforms act as data hubs that can be used for both analytics and activating marketing activities. In this chapter, we take a deeper dive into analytics, including analytic capabilities, price optimisation, churn and retention analysis, visualisation, and reporting.

REMEMBER Not all customer data platforms have native analytics tools. Many CDPs require you to send data downstream to an external analytics platform or data warehouse.

Zoning into the Analytical Capabilities of a CDP

In the vast realm of customer data platform analytics, several types of analysis stand out as the most important. These include:

» Audience analysis

» Funnel analysis

» Recency, frequency, and monetary (RFM) analysis

» Predictive modelling, affinities, and propensities

While there are other forms of marketing analysis, these are typically the methods you'd use in a customer data platform, or when using the data from one.

Audience analysis

Audience analysis studies common characteristics of subgroups within your customer base. This includes demographics, geographic location, language, and interests. By grouping people with common characteristics, you can build audience segments that more accurately represent personas.

REMEMBER

When you have your personas, you can target messaging towards these segments based on several characteristics, including:

» Age, income, education level, and other demographics

» Purchasing patterns

» Commonly used platforms, including social media

» Unmet needs of the target audience group

» Types of messaging that are most effective with this group

TIP

You can also think of these personas or segments in terms of where they are in the buying process. In the early stages, it may be most effective to build brand awareness with a prospective customer. From there, you can begin to describe how you can address some unmet need and generate interest in your products, followed by providing specific offers that match their interests.

Ideally, the next stage is when the prospective customer becomes a paying customer. At that point, you can turn your attention to their satisfaction and continuing business. While maximising the customer's lifetime value, you can also consider how to help them become advocates for your brand. Social media can amplify the reach of loyal customers willing to share their enthusiasm for your products.

Funnel analysis

Funnel analysis examines the behavioural flow of customers as they move from indicating interest in your products to making a purchase. Funnels are wide at the top and more narrow at the bottom, so they aptly capture the typical process of narrowing down the set of customers who actually make a purchase.

EXAMPLE

Funnel analysis uses multiple stages to track the customer journey. The top of the funnel may be a customer visiting your website or engaging with an email. The next step may be reviewing products, followed by adding a product to a basket. From there, the customer moves to the checkout process and then ultimately completes the purchase.

At each stage, if all goes well, the customer moves to the next step. More likely than not, certain customers will drop off at each stage. For example, after reaching your website, a customer might view a few items but never add anything to their basket. In this case, they may not have seen anything that interests them. One way to address this is by recommending other products the customer is likely to be interested in.

When customers enter the checkout process, they may not complete the purchase. Here, the reasons can vary. The total price may be more than they expected, or the time to ship may not meet their schedule. Depending on the reason for the drop-off, you can take action to correct the issue. If you can predict that the customer is likely to drop out of the funnel because shipping will take too long, you can offer expedited shipping at no extra charge.

REMEMBER

Customer data platforms are essential for understanding the nuances of customer behaviours at an aggregate level. Funnel analysis will help you address typical blockers within the sales process.

Recency, frequency, and monetary (RFM) analysis

RFM analysis is a way of analysing and scoring customers' purchasing patterns and behaviours. It uses three metrics:

>> *How long ago* did this customer last make a purchase?

>> *How often* does this customer make a purchase?

>> *What is the value* of their order when they make a purchase?

Combining the answers to these three questions creates a single RFM measure for the customer. Both the individual metrics and combined measure are useful in multiple ways. They help you predict when a customer is going to buy again and how much that order will be worth. With those predictions, you can group customers and target messaging and offers to increase any of the three metrics.

EXAMPLE

For example, you could offer coupons to encourage additional purchases and drive up the monetary value. You could also encourage more frequent purchases with a loyalty programme that provides benefits for customers making regular recurring purchases.

Predictive modelling, affinities, and propensities

The most effective CDPs use a combination of data science and machine learning techniques to help identify actionable insights using predictive analytics. Some of the key metrics used in marketing include:

>> Historical customer lifetime value (CLV) – the value of all previous orders made by a customer

>> Predicted CLV – the predicted value of the customer's orders over the next year

>> Churn risk prediction – the probability that a customer will churn, based on the number and frequency of orders

>> Average time between orders – the average number of days between a customer's orders

Affinity modelling helps to identify opportunities by analysing data about customers' interests, behaviours, and preferences. This

helps reveal affinities between customers and products, which informs more targeted marketing, such as cross-selling.

Propensity modelling aims to flag customer segments with a high chance of converting. This is a powerful model that uses data on customer actions to predict how other customers or potential customers will respond to offers.

HOW MUCH?! PRICE OPTIMISATION

Customer data platforms capture a wide array of information that can help you optimise product pricing. There are challenges though. The optimal price for a product is influenced by many factors, including:

- Who are you selling your product to?
- What customer segments do these customers fall into?
- What's the customer's purchase history?
- How frequently does the customer buy a particular product?
- Are there competitive products you could easily substitute for the product you're selling?

You can answer these questions with a combination of data and analytic techniques that use statistics and machine learning to find optimal price points for a set of products and customers at a particular time.

You can see where a customer data platform could fit in here. A CDP has the data you need to perform price optimisation analysis, the analytic tools for estimating optimal prices, and the capabilities, like customer segmentation, which can be used as building blocks for analysis.

You can just as easily see the cost of not using a customer data platform for cost optimisation. Without the right kinds and amounts of data, you make educated guesses at pricing. This may work well in many cases, but you're unlikely to maximise your revenues with some clients, and risk losing sales to other clients because you've overpriced a product.

As bad as it is to lose a sale and associated revenue through mispriced products, it's far worse to lose a customer forever.

Checking Out Churn and Retention Analysis

In a competitive market, acquiring customers can be expensive. Potential customers may already be loyal to a competitor and not interested in looking elsewhere. Someone who might be open to becoming your customer may be inundated with ads and marketing from competitors that drown out your own communications. These and other factors lead to the harsh reality of customer acquisition: it's going to cost you.

These high acquisition costs make keeping customers essential. But that's easier said than done . . . at least, it used to be. Now, customer data platforms are changing the process of retaining customers.

With customer data platforms and their combination of comprehensive data and analytic tools, you can build models that help you predict who will churn or leave for a competitor, and who's most likely to remain your customer.

Wait, where are you going?

You can apply the techniques and tools you use for customer segmentation to the problem of churn. You need to identify customers who are most likely to stop being your customers. With your customer data platform, you'll have detailed data on customers who are no longer buying from you, such as:

>> The time period over which they made purchases

>> The types of products purchased and how they changed over time

>> The value of orders made and how that changed over time

>> The estimated lifetime value of that customer and how it changed over time

>> The results of sentiment analysis of comments and messages and how those changed over time

As you can see from the list, you need to consider key business performance metrics, such as customer lifetime value, average order value, and sentiment analysis – and an understanding of how they evolved.

Consider a customer with a regular pattern of purchases over a three-year period. At the end of that period, the frequency of purchases decreases gradually but consistently. The average order value decreases as well. This may continue for several months and then, suddenly, there are no purchases at all. This kind of change – from a consistent pattern of orders over time to a small but noticeable variation in the pattern – could indicate a problem. A sudden end to all orders is clear confirmation of a problem.

Churn isn't always obvious

The scenario above is a simple example, but customer data platforms with sophisticated statistical and machine learning tools can find patterns such as this and ones that are much less obvious.

If you can consistently and reliably identify customers who are likely to churn, you can target marketing and sales activities to reverse the trend. With the comprehensive data in your customer data platform, you can monitor the effectiveness of these retention efforts and collect valuable feedback for crafting and tuning your customer retention efforts.

Visualising CDP Data

Structured analysis is important for understanding your key performance indicators. They provide a foundation for decision-making and structuring processes around marketing. Often, you need more than a list of numbers to help you understand the big picture of your marketing efforts.

Data visualisation is an important tool for seeing the woods as well as the trees in your marketing operation. You can use two types for marketing analysis:

» *Standardised visualisations* are helpful for summarising specific pieces of data and showing them together. For example, you may want to have a key performance indicator dashboard with several metrics. These can be displayed using visualisation techniques, such as pie charts to show composition, or line graphs to show time series data.

» The other type of visualisation is driven by *ad-hoc querying*. For example, you may feel that a message isn't resonating with customers. You could display a graph showing the number of open messages by day over the past week and compare that to the number of open messages of another, more successful campaign. This kind of visualisation can help you see patterns in the data that aren't obvious on a spreadsheet.

REMEMBER A feature-rich reporting system along with visualisation tools are important mechanisms for sharing the insights gleaned from the data you've put into your customer data platform.

Reporting is essential to making sense of your data. In this chapter, you've seen a range of analyses you can perform. These can include both standardised and customised metrics. Once you've identified the analysis and metrics that work for your operations, you need to make it easy to report on them.

Chapter 8
Ten Privacy, Security, and Compliance Considerations

A great deal has happened in recent years around the issues of data privacy and consent. The following are ten things that you need to know about legal compliance when deal-ing with customer data.

Please note that this information is not legal guidance and you should consult with professionals to ensure you stay up to date on all legislation updates and mandates.

>> **What is GDPR?** It stands for General Data Protection Regulation (GDPR) and has been a cornerstone of business management and consumer law throughout Europe since May 25, 2018. It was designed to protect the privacy of EU (European Union) citizens, including when those citizens engage with businesses outside of the EU, by regulating how companies across the world process and use customers' data.

>> **Does GDPR apply to the UK now it has left the EU?** The regulations of the EU GDPR have been incorporated into UK law as the UK GDPR.

>> **How does GDPR impact your business?** The GDPR means that customers in the EU and UK now have more control over their data collection, storage, and use. So you need to think about such things as how you manage and use

customer data and how you'll enable and support your customers' rights to control their data.

- >> **Customers have the right to access:** Customers have the right to know how their data is collected and why.

- >> **Customers have the right to be forgotten:** When requested, you must erase all information about a person. It must also be as easy for someone to withdraw their consent as it was to give.

- >> **What is CAN-SPAM in Canada (Canadian Anti-Spam Legislation CASL)?** The three main CASL requirements that you need to comply with when sending commercial electronic messages (CEMs) are: (1) Obtaining consent, (2) Providing identification information, and (3) Providing a way to unsubscribe/opt out of messaging.

- >> **What is the California Consumer Privacy Act (CCPA)?** It is a response to a perceived gap in privacy protections in the United States. Companies that handle the personal information of California residents are required to inform them of the company's privacy practices and resident's privacy rights. This includes the right to: (1) Know about the personal information a business collects about them and how it is used, (2) Delete the personal information collected (with some exceptions), and (3) Opt out of the sale of their personal information.

- >> **What is the California Consumer Privacy Rights Act (CCPRA)?** It is a law that amends and expands the requirements of the CCPA, including (1) Adding a 'sensitive personal information' category, (2) Establishing the right to limit the use and disclosure of sensitive personal information, (3) Establishing the right to correct inaccurate personal information, (4) Expanding the 'Do Not Sell' opt-out requirement to 'sharing' of personal information for purposes of cross-context (or a third party) advertising. The CCPRA became operative on January 1, 2023.

- >> **What is the SPAM ACT 2003?** In Australia, sending SMS and email marketing messages is regulated by the Spam Act 2003 (Spam Act) and the Spam Regulations 2021. The Spam Act was designed to protect people from receiving spam or unsolicited commercial electronic messages. It applies to sending CEMs and governs who you can send to and what your messages need to include.

- >> **What is the Data Protection Act of 2021?** This act establishes an independent Data Protection Act Agency. This agency regulates the sharing, processing, and collection of personal data.

Turn customer data into revenue

Customer data offers an incredible opportunity for marketers to under-stand, target, and sell to key audiences. But there are several challenges to overcome: customers hesitate to share data, legislation requires privacy standards, and – most intimidating of all – data lives siloed across different channels and tools.

But don't despair. *Customer Data Platforms For Dummies* is here to help. A cus-tomer data platform collects and organises data from multiple sources to power more relevant analysis and communications. This book explains how to choose the right customer data platform for your business. Why? To give you access to data that's easy to segment, manage, activate, and analyse – resulting in powerful customer insights, stronger engagement, and more sales. Dive in!

Inside…

- Choose your customer data platform
- Segment customers for persuasive comms
- Continuously collect usable data
- Extract insights to increase engagement
- Run powerful marketing orchestration
- Analyse and improve your campaigns
- Stay compliant with privacy legislation

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