🌲 Canopy Labs

Customer Data Framework

An **8-step framework** to score your data capabilities and build a forward-looking data strategy.

Canopy Labs

Customer Data Framework

It will come as no surprise to many that enterprise IT projects often run over budget - or worse, are left unfinished. Indeed, one of the most challenging IT tasks we hear regularly is around integrating customer data and harnessing its analytic findings. The challenges are multifold: first, centralizing customer data is difficult, as it requires a tacit understanding of each business unit's data structures and IT architecture. Furthermore, analyzing such data and dispersing these analytic results across the enterprise requires a paradox of organizational excellence: a centralized analytics team serving a decentralized set of business units, with the analytics team actually understanding and prioritizing its work across those business units.

Canopy Labs is fortunate to work with numerous businesses across a wide range of revenue scales. From 10-person eCommerce startups to billion-dollar retail operations, businesses of all sizes face challenges with data integration, standardizing analysis, and making informed decisions based on the findings.

To succeed in this area, businesses need to first establish a clear structure around approaching customer analytics, data, and reporting. To help your company achieve your project success, **Canopy Labs has developed the Customer Data Framework (CDF)**. The CDF is a means of testing an organization's readiness to use and analyze customer data and analytics. This framework helps build an understanding of how data exists within a corporation and how analytic results can be used.

The Process

The CDF defines **8 core capabilities that every business must develop** in order to effectively take action on and learn from its customer data. Canopy Labs scores an organization on a 5-point scale within each of the eight categories. Businesses that are just developing a basic capability in this competency fall into our "1" score, while best-in-class practices are scored as a "5". For a full breakdown of the framework and scoring system approach, please contact info@canopylabs.com.
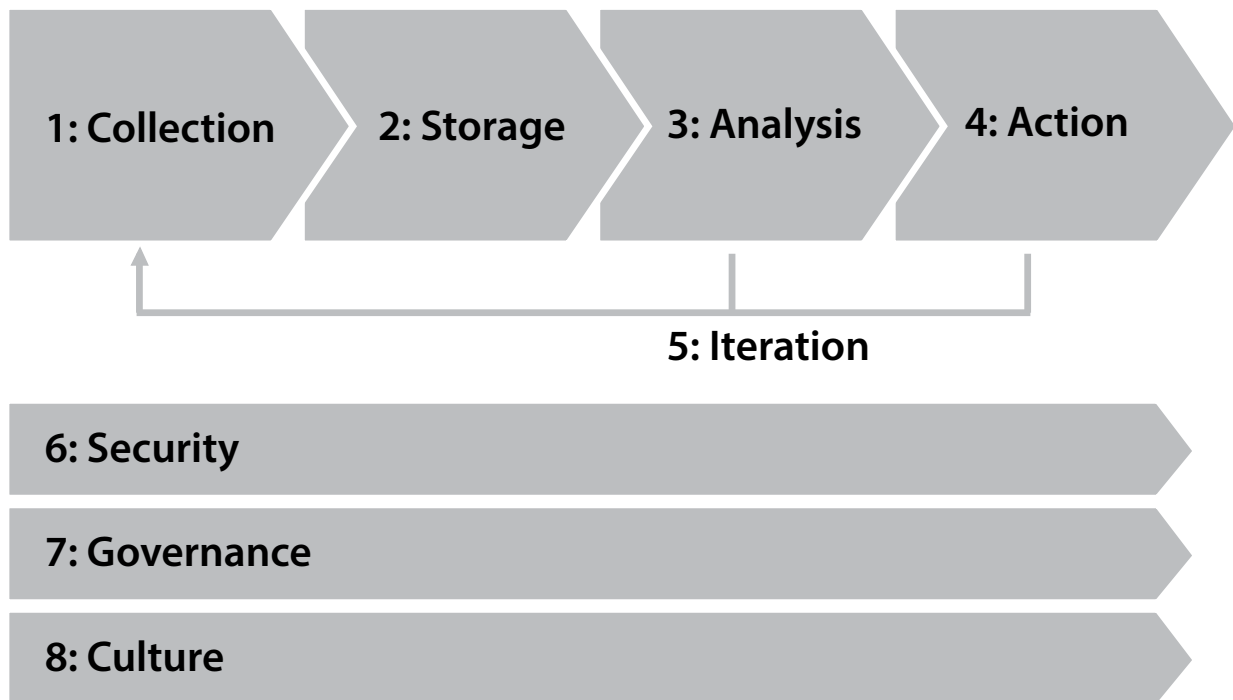
Figure 1: an overview of the Customer Data Framework (CDF) created by Canopy Labs. Steps 1 through 5 review the process of actually collecting and interacting with data. Steps 6 to 8 focus on how data is treated within the organization. Below is a brief description of each step:

1. **Collection:** *how data is actually collected from customer-facing channels and other data sources.*
2. **Storage:** *once data is collected, how is it stored? This involves the processes around how long data is retained and how easy it is to access.*
3. **Analysis:** *the strategy around generating insights from the data being stored and made available to relevant teams.*
4. **Action:** *how are insights actually used within the organization?*
5. **Iteration:** *every data-oriented process and application thereof requires iteration to find and scale best practices.*
6. **Security:** *how is data being protected in collection, transmission, storage?*
7. **Governance:** *how are steps 1 through 5 governed within the organization? This focuses on transparency of decision-making and processes in place.*
8. **Culture:** *what is the organization's general view of data and analytics? Specifically, is the organization promoting the measurement and use of data? Are employees trained in the usage of data?*

1. Collection

The first step of the customer data framework is data collection. It is important to list and analyze all the customer data that passes through a company's various IT systems, and to understand what it actually represents. A best-in-class company tracks all its customer data and is able to collect a large portion, if not all, of the data. While the types of data available vary depending on the nature of the business, the following four general sources of customer data exist within most organizations:

- **Transactional data.** All actions that involve a financial transaction between the business and its customers (e.g. purchases, subscriptions, fees)
- **Engagement data.** Actions that a customer takes to engage with the business, not related to financial transactions (e.g. opening an email, browsing the website, responding to a survey)
- **Demographic data.** Attributes related to the customers themselves, also referred to as "firmographics" in a B2B context (e.g. location, gender)
- **Product usage data.** Any data that relates to how a customer "uses" the business' product, if applicable (e.g. software product, financial product).

2. Storage

In many ways, collection is about the organization being able to access the customer data flowing through its systems. The "storage" capability focuses on the organization's ability to actually maintain a historical account of the customer data that passes through its systems. Storage focuses on the core data itself, as well as relevant metadata, such as time stamps and quality assurance metrics (e.g., whether the data actually follows any prescribed standards).

Note that data passing through a company's IT systems is often left uncollected. Imagine a retail operation: while actual purchases are tracked, most customers who enter a store and leave are unknown to the sales agents or staff. This is why some restaurants and retail operations have contests and campaigns to collect business cards or encourage people to register for free services.

3. Analysis

The core of the customer analytics strategy is the "analysis" step. Customer analytics is impossible without actually taking stored data and running it through a set of business rules, statistical methods, or

other tools. This step scores companies on the sophistication of their analytics capabilities. Those using simple heuristics or rules score low, while organizations with sophisticated software and teams with strong statistical backgrounds score well.

4. Action

Analytics without action is a theoretical exercise and does not actually help an organization in any way. Organizations need to act on whatever findings they discover through the analysis process. A strong score in this category indicates that the company is regularly taking models or analytics results and actually testing them, and ensuring that marketing,

The CDF Maturity Model: Scoring Organizations

To facilitate the process of scoring an organization, Canopy Labs has developed a 5-level maturity model for the CDF. For every part of the CDF, we generate a spectrum of scores with a score of 1 representing a "needs improvement" while 5 being "best in class". The maturity model is clearly defined in each of the five steps, so an organization can take the results and constantly score themselves in the future (though "best-in-class" definitions are likely to change over 6-12 months).

The process of scoring an organization can be relatively quick. Below is a timeline for which the CDF maturity model can be used to score an organization within 4 weeks:

- **Week 1: Goal Setting and Introductions.** The first week will focus on determining key stakeholders and business units to interview.
- **Weeks 2-3: Interviews and Planning.** Interviews with business units, and stakeholders to score the organization on the maturity model.
- **Week 4: Communication and Confirmation.** Reviewing the findings with stakeholders and confirming scores.

Further weeks can also include developing a strategy to improve the organization's data-oriented work.If you are interested in the approach above, please e-mail info@canopylabs.com for more information.

sales, and other business functions have access to the latest model results to inform their campaigns.

5. Iteration

Analytics-enabled business activities are scientific in nature: a company tests hypotheses using available data, and proceeds to apply findings on hypotheses that are most likely to succeed. The optimal process for hypothesis testing is an iterative one: you test, collect data, and try again. This process is what underpins any successful scientific effort and is analogous to best practices with customer data. Every model and every campaign should be tested rigorously, and the results themselves should be included in future analysis. This iterative approach (i.e., feedback loop) will build on successes to drive even bigger performance gains.

6. Security

There are three crosscutting themes to customer data. These crosscutting themes focus on the broader, often organization-wide efforts to optimize and improve on customer data capabilities.

The first of these is security. Any customer data strategy requires a strong understanding of which data is valuable not just for analytic models, but to potential criminals and other threats. Furthermore, ensuring that the data is safe and secure is crucial to maintaining a sustainable business strategy based on customer data. Otherwise, the risks are too great.

7. Governance

Related to security but much less tactical is "governance". Governance around customer data often relates to understanding how to make decisions around investments, and how to prioritize projects related to customer data. Not every dataset is created equal, and not everything can be optimized: knowing which is and which is not, and knowing how best to make and communicate these decisions, is crucial.

8. Culture

Finally, developing a strong culture around analytics and optimization underlies the entire customer analytics process. A strong culture results in employees understanding the importance of secure data, respecting decisions made around optimization, and trusting analytic models to help them in their day-to-day decision-making. A strong culture enables the activity and feedback loops that lead to performance gains through analytics.

Conclusion

Building a comprehensive customer analytics and data strategy can be challenging, but also immensely rewarding for your business when implemented correctly. Introducing a rigorous and performance-based mindset around analytics often leads to noticeable performance gains, and helps drive businesses forward.

Using the eight-step framework that we have provided, you will be able to better understand the areas and capabilities your business can further develop in order to build the most sustainable and successful customer data strategy.

Canopy Labs

Contact Us

Canopy Labs is a corporation based in Toronto, Canada with offices in New York City. If you have questions about this document or are interested in learning more about customer analytics, please reach out to us at the coordinates below.

Phone:	+1-647-533-8944
Email:	info@canopylabs.com
Web:	www.canopylabs.com

Address:	130 Spadina Ave., Suite 806
	Toronto, Ontario
	M5V 2L4