Pendo optimizes workflows, creates predictive models, and delivers value with data
Founded in 2013 in Raleigh, North Carolina, Pendo is an innovative digital native cloud company that helps people adopt software quickly and successfully. The company’s platform for digital product teams combines powerful product usage analytics with user guidance, communication, feedback, and planning tools, without requiring engineering resources. To efficiently manage their continued rapid growth, Pendo relies on accurate, timely, and consistent data.

Leveraging Google Cloud BigQuery and Looker has transformed how Pendo analyzes, accesses, and acts on data to drive its business. The modern data stack enables Pendo to take action on valuable insights to continually improve processes and outcomes for sales, customer success, and marketing teams.

Multiple Sources of Truth from Siloed Tools

Previously, Pendo employees used spreadsheets and task-specific tools to gather data. Then they manually joined reports to try and build a more comprehensive view of the business, which was time consuming and often led to conflicting results.

“I did all my reporting in Salesforce. It’s what I knew and was comfortable with. We’d sometimes have a situation where one sales leader would see one thing, and my report would show something else, and we’d realize we were running reports with different fields,” says Tyler Crumpler, senior marketing manager at Pendo.

It was a challenge to centralize data from the company’s various SaaS applications, such as Salesforce or Marketo. As Alex Rosenbower, senior go-to-market analyst at Pendo, explains, “Twenty people could run a report 20 different ways and come up with 20 different numbers. We needed a single source of truth in order to trust the numbers, a way to automate reporting and save time, as well as a central point of access so we could align strategy to the same metrics.”

Key Takeaways

- Centralized data access via Google Cloud helps consolidate costs and deliver trusted self-service across the organization
- Fast time-to-value with an implementation requiring less than 50% of two employees’ time for one week
- Decreased the time spent on manual reporting, which allows the data science team to focus on high-value activities, such as building predictive models
- Actionable insights empower self-service and decision-making across the organization — from marketing to sales to customer success
- Self-service data culture instills confidence in employees to track and meet goals as well as understand the impact of their work.
Centralizing Data Storage, Definitions, and Access

The company selected BigQuery, Google Cloud’s enterprise data warehouse, for their core product data storage and processing. BigQuery now provides centralized storage from data for their various applications, including Google Sheets, Salesforce, and Marketo. Data workflows are managed by Cloud Composer and ETL (Extract, Transform, and Load) processes run via Airflow.

To establish a single source of truth and power data access, Pendo selected Looker, Google Cloud’s modern business intelligence and data application platform. “Looker integrates seamlessly with Google Cloud Platform, provides a single source of truth and consistent metrics, and powers organization-wide self service,” remarks Rosenbower.

With support from Looker Professional Services, two members of the Pendo data science team were able to implement Looker in just one week. The Pendo team members dedicated only 50% of their time during the week to the task — focusing primarily on best practices and building the data model, business rules, and permissions.

With Google Cloud, Pendo has been able to achieve their primary goals of centralizing data, aligning around a single source of truth, and delivering actionable insights across the organization.

Enabling Predictive, Actionable Business Playbooks

Before implementing Looker, Pendo’s data science team managed constant reporting requests along with new data model creation. With information siloed across systems, they relied on manual methods for meeting the company’s reporting needs and communicating information — often sharing spreadsheets via email and chat. These time consuming processes meant the data science team couldn’t dedicate as much of their time to

“If you want to report to leadership on what you’re doing and how it’s used, you need to show that in Looker. Looker is our single source of truth.”

Alex Rosenbower, Senior Go-to-Market Analyst, Pendo
high value and complex analysis, causing delays in access to insights. “Before, everyone had their own opinions, and drawing a final conclusion for our leadership team required gathering information from individual managers and trying to put it all together,” adds Rosenbower.

Once Looker was in place, the most immediate goal was to make it accessible and transparent for multiple teams. With the time they’ve regained, the data science team has been able to build out a lead scoring model to help Sales Development Reps (SDRs) prioritize activities, a customer health module to help Customer Success Managers (CSMs) proactively engage with accounts, and a predictive revenue model to help the entire company align and strategize.

For example, the Customer Health Module allows the Customer Success Managers (CSMs) to visualize how their accounts are doing as well as drill into specific factors contributing to account health. Although this module is built in Looker, the Pendo data science team embedded it directly into Salesforce where the CSM team does the majority of their work to make it easier to integrate data into their existing workflows. They also have a Customer Health Module dashboard with filters for account health and sales predictions. This enables CSMs to filter and deep dive by their accounts, while also enabling the management team to look holistically at the portfolio of accounts and immediately know which accounts need extra attention. This comprehensive view allows the Pendo team to meet and exceed their primary goal — providing the highest possible customer value to help improve the software experience.

The transparency enabled by Looker also helps management with revenue planning and ensures that sales managers hit their targets. As Rosenbower explains, “We have a predictive revenue model that uses a Python package or a SAS tool that lives outside other systems. The data science team created an ETL workflow to provide hourly or daily updates, depending on the model. If someone logs a deal they’re planning to close at a certain value and the model shows they are not on track to meet that value, Looker flags the deal. Managers use the customer health and predictive revenue models to manage their team and coach them throughout the quarter in order to get them closer to their goals.”

“We now have a consistent understanding and predictability of revenue and churn across the business. We have more predictability and earlier insights into whether we’re on track, ahead, or behind on our targets — and why.”

Alex Rosenbower, Senior Go-to-Market Analyst, Pendo
Because of the high value tasks the data science team has been able to take on since implementing Looker, Pendo now has a greater understanding and predictability across the business. "Now, we have a centralized location displaying model results. Everyone is on the same page, and we all understand how the business is tracking. We have more predictability and earlier insights into whether we’re on track, ahead, or behind on our targets — and why," adds Rosenbower.

This visibility has been transformational. Not only are people regularly using data, they are using insights to create playbooks to drive business value. As Rosenbower explains, "We are helping people understand what happened and why it happened — and then we are utilizing our data science team to predict what will happen. We’re at a point with Looker where we are able to bring in predictions. We take all that information to help develop playbooks and actions to drive optimal outcomes."

**Optimizing Marketing Campaign Efficiency**

To help fuel Pendo’s rapid growth, the marketing team has to maintain a steady and effective stream of marketing campaigns. Previously, it took over an hour to manually create a report that measured the success of each campaign. This time consuming process meant they didn’t have access to real-time campaign insights that would allow them to pivot quickly if needed. Additionally, this limited the level of detail they could access on each campaign. As Crumpler shares, "I often had to build 10 reports, pulling data from multiple tools, to answer the questions I had about a campaign’s members, opportunities, and follow-up".

Now, the marketing team has a unified Campaign Activation Dashboard in Looker. Each team member can easily filter results by Salesforce campaign and instantly receive a campaign-specific report with full details breaking down the campaign by specific segments, territories, pipeline, and marketing qualified leads (MQL), as well as benchmarks to help them compare performance across campaigns.

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Tyler Crumpler, Senior Marketing Manager at Pendo
This holistic view across campaigns and the ability to do a deep-dive has increased marketing’s contribution to sales efforts without increasing campaign budgets.

“The Campaign Activation Dashboard allows me to have conversations with the sales team and share the exact results marketing is driving,” points out Crumpler. “I can look at campaign performance and lead follow-up with SDRs to get a complete view of what we’re handing to sales. This allows me to put a revenue dollar amount next to programs I build and put a benchmark next to it for how it compares to other programs.”

Quantifying the ROI of Customer Stories

As the company grows, sales representatives increasingly rely on customer stories and other marketing content for their sales cycles. Previously, it was challenging to find the most relevant, recent, and robust content to share with a prospect. Using Looker, Pendo created a Customer Stories Dashboard that allows the sales team to rapidly search for and locate relevant examples. On the backend, this pulls from a list of case studies in Google Sheets that are displayed via Looker. By accessing these stories via Looker, sales reps can filter and search for precisely what they need to help support their sales effort. Once they locate the right story, the dashboard links directly to the latest publicly approved asset so the rep can access and share it with their prospects and customers.

This self-service access has benefited both sales and marketing. On the marketing side, Crumpler and his team routinely use the dashboard. “I use the Customer Stories Dashboard all the time when building out campaigns. If I need a story to highlight specific integration, all the information is right there.”

To further automate the process and integrate data into company workflows, Pendo leveraged Looker’s Slackbot. When a sales rep asks for customer stories, the Slackbot automatically sends the rep to the dashboard, inviting them to self-serve and saving the marketing team time. Additionally, the usage statistics from this

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dashboard have helped the marketing team gain additional insight into how their customer story content is being used as well as tie that content to sales outcomes. The Chief Marketing Officer uses this data to prioritize initiatives, such as custom Marketo landing pages, for the most frequently accessed assets. Now, the customer stories can be associated with pipeline and usage to show the ROI of the marketing team's work.

## Investing in a Growing Data Culture

To maintain the company’s data culture as they continue to grow, the data science team regularly trains business units at Pendo to understand and explore common data sets. They also set aside time to partner with individuals across the business to help them understand and tackle specific projects.

“People are eager to understand and display the outcomes of their efforts. They know that to do that in front of our leadership team, they need to work with the business analytics team to properly track and report on their efforts, and ultimately display it in Looker. Their own passion for the project drives them to want to understand how to slice and dice the data themselves,” says Rosenbower.

As both employees and leadership see the value of data and self-service, the data culture at Pendo continues to grow as they continue to scale their business and the value they deliver to their customers.

“We’ve proved the early value of Looker. We measure this through the growth of our weekly active users, and that growth rate is faster than our new hire rate. We’re continuously building out new use cases in Looker to help our teams optimize their work. We’re excited for what’s still to come,” Rosenbower affirms with pride.