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# To Drive Business Outcomes, Finance Analysts Need Modern Tools

Finance analysts are now expected to help companies improve business decision-making — but they can't do it without the right tools.



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# Introduction

Over the last few years, the technologies powering finance analytics have rapidly evolved, and that evolution has raised professional expectations for finance analysts. Analysts are no longer viewed as mere data providers — they're increasingly asked to support strategic decision-making with near-real-time insights that require the latest digital technologies.

Yet many analysts are struggling with outdated manual tools and data integration methods, even as data volumes proliferate. Updating data integration and analysis tools doesn't have to be difficult, however, given the simplicity and accessibility of cloud-based technologies.

Let's take a look at how we got here, the changing expectations for finance analysts, and the way modern financial integration and analysis tools can help analysts meet or exceed those expectations.



# "Premodern" Finance Analytics

Back in the 1980s, spreadsheets revolutionized financial analysis and were tremendous productivity improvements over paper-based methods. They helped analysts catalog and manipulate larger amounts of data more quickly and enabled more complex analyses. They also helped standardize reporting through templating and the creation of repeatable processes.

The subsequent emergence of SaaS applications like NetSuite and Quickbooks further standardized financial reporting and made it more scalable. By reducing manual work, these tools improved the efficiency and accuracy of finance analytics. Analysts could use them to create standard financial reports out of the box; they could also extract historical financial data from these systems, load it into spreadsheets, and create additional reports for stakeholders. Many finance analysts are using some version of this reporting system today, often with one or more [custom ETL pipelines](#) delivering finance data into a warehouse.

From the perspective of modern, cloud-based financial analysis, however, this approach has significant drawbacks:

- **No single source of truth.** Data is siloed in separate SaaS applications or spreadsheets — there is no single source of truth or centralized reporting. Analyses compiled manually from multiple systems may produce conflicting results.
- **Manual reporting.** SaaS applications often have limited reporting capabilities out of the box, so analysts cannot create custom reports or perform complex analyses and forecasting. Analysts are forced to do time-consuming, inefficient manual reporting — there's no way to automate report generation.

- **Stale, unreliable data.** Analysts can't automate data refreshes or data quality checks.
- **Slow, cumbersome data distribution.** Analysts send out updated spreadsheets manually; stakeholders, including business leaders, cannot independently access the latest operational or customer data in real time or near real time.
- **Slow time to insight.** Custom ETL pipelines built in house allow analysts to access finance data in a warehouse, but they're slow to update if the source data changes or new fields are needed.
- **Difficulty creating models involving multiple sources.** Working with siloed, incomplete data makes it difficult to build comprehensive models — e.g., a revenue attribution model that combines product, finance and customer data to reveal trends.

These limitations, of course, hint at what's possible with more modern tools, and what's expected of today's finance analysts — including self-serve, near-real-time analytics; sophisticated forecasting; and granular access control for sensitive data. Let's take a look at how a modern analytics setup can help finance data teams achieve these objectives, and many more.

# Finance Analytics Built on Modern Architecture

Modern finance analytics relies on a set of cloud-based technologies collectively known as a [modern data stack](#). The name reflects the modern cloud applications stack, which builds on basic TCP/IP communications protocols and adds layers of application-specific tools such as web and database services and identity and access management.

A modern data stack (MDS) encompasses the following tightly integrated tools:

- [Automated, fully managed data integration](#). Prebuilt data connectors to SaaS apps like NetSuite and Quickbooks normalize data and create an analysis-ready ERD for each source. They also detect and adapt to source changes automatically.
- **Cloud-based columnar [data warehouse or data lake](#)**. Data destinations that separate compute and storage and easily scale as your analysis needs change. The warehouse or lake can act as a focusing lens to examine trends.
- **In-warehouse [data transformation](#) tool**. Allows you to track data lineage and schedule transformations automatically. Data integration providers may offer [prebuilt data models for sources like NetSuite](#), which recreate both the balance sheet and income statement, as well as [other common data models](#) using transaction lines as the base table and joining other data.
- [Business intelligence](#) or [data visualization](#) **platform**. These provide more flexible, actionable and insightful reports, make it easy to share insights across organizations, and enable self-serve analytics with up-to-date data.

Together, these technologies can replicate finance data from almost any source into a destination and continuously update it. The data will land in the destination ready for analysis, with an ERD for each source. Managed transformations occur within the destination, and a business intelligence or visualization tool makes it easy to automate reports, facilitate data access and build complex models.

An MDS is also designed to protect sensitive data. Among other built-in features, administrators can control which users or user groups have access to specific data sets and tables within a data warehouse, and hash sensitive columns to preserve anonymity or block them altogether. Users can also choose private networking to keep data off the public internet and leverage enterprise-level security for cloud migration.

## **Building a sophisticated custom revenue model**

At Fivetran, we're modern data stack evangelists — obviously — but we're also using our own data stack to broaden the role of finance analytics. For instance, we built a custom revenue attribution model to deepen our understanding of the factors impacting revenue and improve decision-making.

Our model combines financial data with data from other sources, including product usage data and customer information, and identifies which factors influenced month-to-month revenue changes. We want to be able to quantify the impact of variables like pricing changes, adding new customers, and changes to existing customers' usage patterns. The output of the model is available as a dashboard, and account owners can drill down and look at granular metrics for individual customer accounts.

Building such a complex model was only possible because the financial data was in a central warehouse, along with data from other key sources. In the next section, we take a look at how analysts at other companies are using the modern data stack to simplify data engineering and drive new analytics outcomes.





# How Finance Analysts Are Using the Modern Data Stack

We've seen how a modern data stack can improve finance analytics — and with it business agility, data transparency and data security. In each case, progress was made possible by a cloud-based data integration tool that required little to no configuration and allowed users to add financial data sources instantly. Here's how analysts at four organizations have leveraged modern data integration and an MDS to generate new metrics and models.

## Intercom

To obtain a single view of its financials, software vendor Intercom used a customer relationship management system (CRM) and employed a variety of manual methods to integrate data from sources like Google Analytics, LinkedIn Ads, Marketo, NetSuite, Salesforce, Stripe and Zuora.

Intercom had to mix and match both structured and unstructured data to produce reports and manage finances. Its engineers and analysts spent a massive amount of time on this effort, and while they had a CRM, they had no way of integrating other digital technologies to make it effective, useful and actionable.

By adopting a modern data stack, the company was able to integrate a diverse collection of data sources and join financial data with data from other departments. Using Tableau as a BI tool, they were able to rapidly create detailed reports and dynamic dashboards.

They now have visibility into how they handle cost allocations and manage payments and accounts receivable. Before the integration, they needed 10 hours every week to manually reduce data discrepancies and errors — this was cut to less than an hour.

## Honeycomb

This software monitoring vendor [had trouble understanding](#) how customers used their products, which was illustrated by a series of problems with their pricing model. The Honeycomb data team replaced an outdated SQL database fed by manual data connectors with Snowflake Cloud Data Warehouse and automated data connectors from Fivetran. Updating the warehouse requires no additional coding or scripting effort. This modern data stack powered a sophisticated financial analysis tool that tracks monthly and annual recurring revenue streams.

## Trustpilot

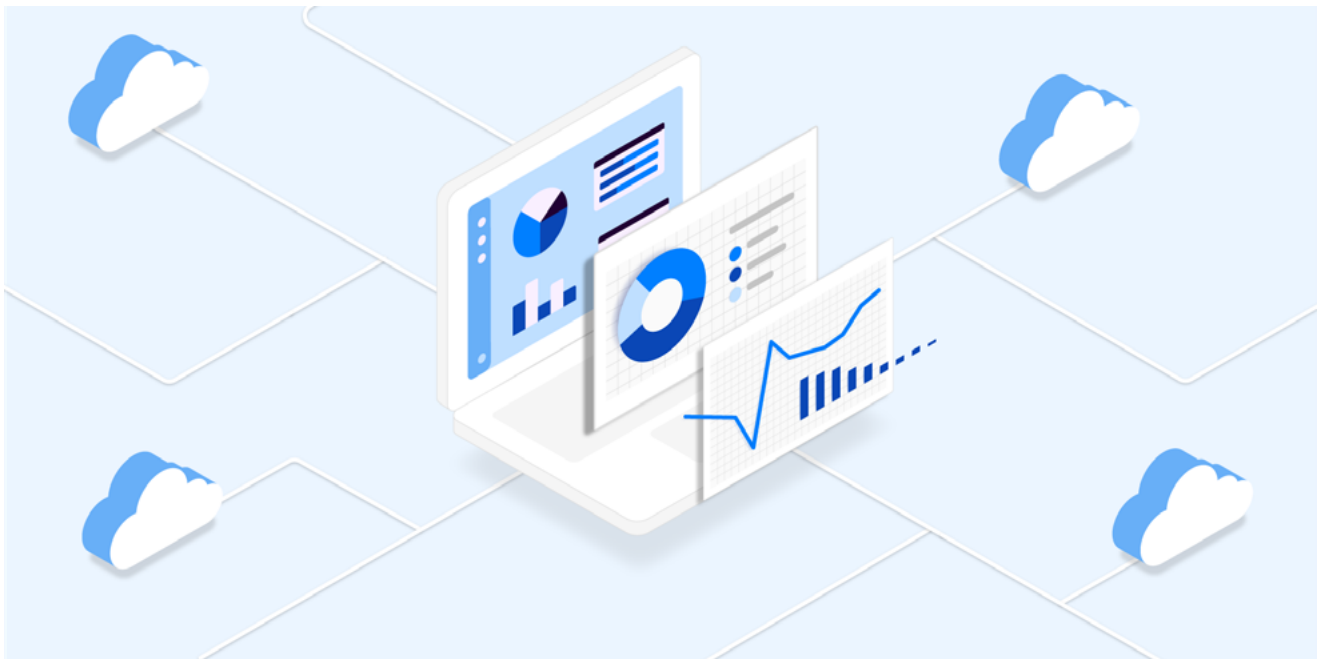
Danish customer reviews portal Trustpilot needed a more holistic view of customers, which required integrating data from several disparate systems. They also had issues integrating their enterprise resource planning and accounting software — it took days to track down and troubleshoot problems, and a month to close their year-end financials.

Trustpilot wanted to use Zuora as its main subscription billing system, and with automated connectors they were able to resolve their software integration issues; it now took minutes instead of days. And with a modern BI tool, Trustpilot can easily generate actionable data dashboards that track recurring payments and other financial processes.

## Kuda Bank

Before adopting a modern data stack, [Kuda Bank of Nigeria](#) built its own data pipelines and managed data analytics across 12 Azure SQL databases. Each database was siloed — owned by a separate department. To streamline operations, Kuda Bank leveraged prebuilt Fivetran connectors to integrate data from these databases and other sources into its Google BigQuery data warehouse, and then added Looker as a modern BI tool.

Now analysts at the bank can quickly uncover trends on customer acquisition and engagement, as well as track account activity. In the process, Kuda Bank freed up five data engineers to focus on strategic projects instead of ETL maintenance.



# Getting Started With a Modern Data Stack

The modern data stack should serve as a blueprint for modernizing your data architecture. It is a paradigm change, so unless you already have a data warehouse in the cloud, you'll need to implement the stack all at once.

Setting up a modern data stack [is easy](#), however, and once it's in place, the process of modernizing your finance analytics can be iterative. This doesn't need to be a giant, six-month project: You can implement more modern reporting on a case-by-case basis, making incremental improvements as you go. This might quickly enable some new analytics techniques, faster delivery of insights, and better integration of departmental data across your organization.

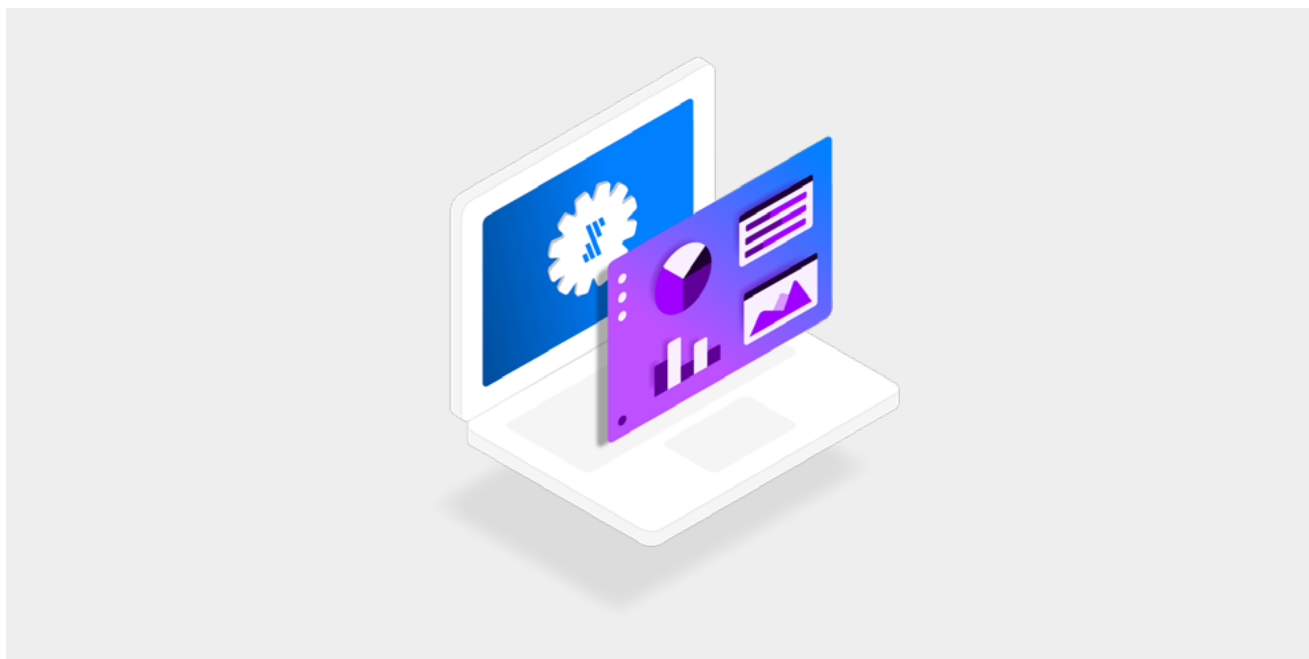
For example, your accountants may have been limited to examining profit and loss statements; now they can examine the overall business impacts and spot trends that might not be obvious from a single department's perspective.

One place to start is [automating key month-end closing reports](#), or choosing some other business process that has repetitive, automation-friendly processes. Once this is accomplished, you could move on to other quarterly reporting, replacing manual wrangling of data locked in spreadsheets. This might reveal the revenue impact of customer purchasing behavior or particular pricing changes.

Once you have a handle on the overall data stack, the key is to get all your data in one central place and do quality checks, then push it to various reporting systems. This will help you provide support for strategic decision-making with near-real-time insights.

Finance analysts with modern, cloud-based tools can move beyond providing data and do

what they're increasingly asked to do: solve key business problems and shape business strategy.



Fivetran is the global leader in modern data integration. Our mission is to make access to data as simple and reliable as electricity. Built for the cloud, Fivetran enables data teams to effortlessly centralize and transform data from hundreds of SaaS and on-prem data sources into high-performance cloud destinations. Fast-moving startups to the world's largest companies use Fivetran to accelerate modern analytics and operational efficiency, fueling data-driven business growth. For more info, visit [Fivetran.com](https://fivetran.com).