



# Four Ways Finance Creates Value with Visual Analytics

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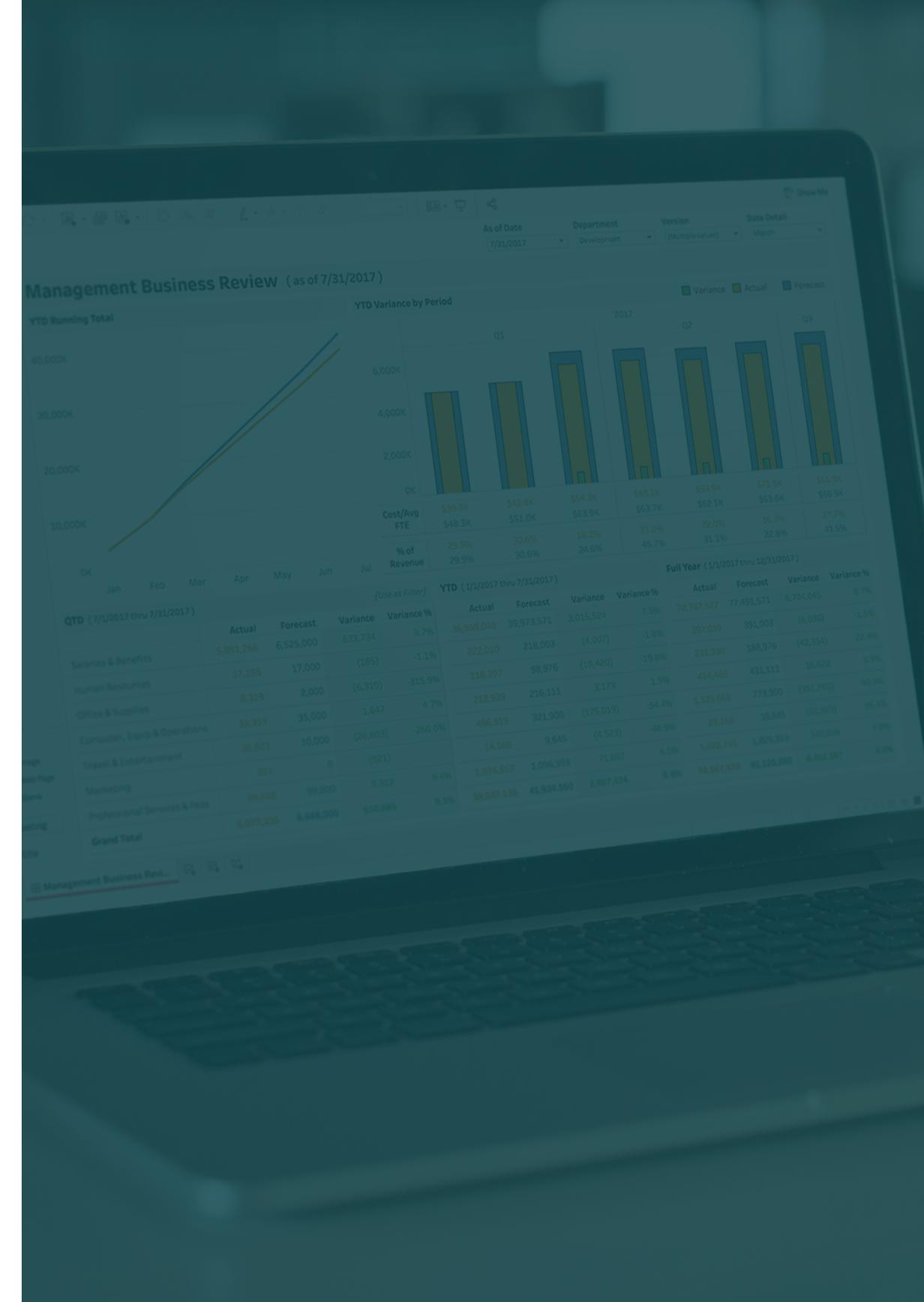
**Tom Gleason**  
VP Finance, Tableau

City 2	Avg. leg price	Avg. segmen	Base amount	Booking channel	Filter	Booking method	City 1	Flight Durati	Flight Durati
Seattle (SEA)	\$747.91	\$299.16	\$1,495.82	Standard air	Agent-assisted	Detroit (DTW)	18	1 M	
Seattle (SEA)	\$435.35	\$435.35	\$435.35	Standard air	Online	Chicago (ORD)	5	0 M	
Seattle (SEA)	\$0.00	\$0.00	\$452.74	Standard air	Agent-assisted	Boston (BOS)	0	0 M	
Seattle (SEA)	\$254.27	\$254.27	\$254.27	Standard air	Agent-assisted	Denver (DEN)	3	0 M	
Seattle (SEA)	\$743.26	\$743.26	\$743.26	Standard air	Agent-assisted	Boston (BOS)	6	0 M	
Seattle (SEA)	\$24.09	\$246.03	\$492.06	Special request air	Agent-assisted	Austin (AUS)	9	0 M	
San Francisco	\$207.75	\$207.75	\$207.75	Standard air	Online	Seattle (SEA)	4	0 M	
Seattle (SEA)	(\$21.35)	(\$111.36)	\$10.69	Special request air	Agent-assisted	Chicago (MDW)	0	0 M	
Seattle (SEA)	\$435.35	\$435.35	\$435.35	Special request air	Agent-assisted	Chicago (MDW)	0	0 M	
Seattle (SEA)	\$0.00	\$0.00	\$849.30	Standard air	Online	Cleveland (CLE)	0	0 M	
San Francisco	\$305.12	\$305.12	\$610.24	Standard air	Agent-assisted	Seattle (SEA)	4	0 M	
Salt Lake City	\$27.85	\$275.31	\$275.31	Special request air	Agent-assisted	Seattle (SEA)	2	0 M	
Seattle (SEA)	\$446.12	\$446.12	\$446.12	Standard air	Agent-assisted	Chicago (MDW)	8	0 M	
Seattle (SEA)	\$338.12	\$338.12	\$338.12	Standard air	Agent-assisted	Cleveland (CLE)	8	0 M	
Seattle (SEA)	\$0.00	\$0.00	\$616.74	Standard air	Online	Kansas City (MCI)	0	0 M	
San Francisco	\$134.42	\$134.42	\$268.84	Standard air	Online	Seattle (SEA)	4	0 M	
Seattle (SEA)	\$177.68	\$177.68	\$355.35	Standard air	Agent-assisted	Chicago (ORD)	8	0 M	
Seattle (SEA)	\$866.05	\$433.02	\$866.05	Standard air	Online	Cleveland (CLE)	9	0 M	
Seattle (SEA)	\$168.37	\$112.25	\$336.74	Standard air	Online	Chicago (ORD)	12	0 M	
Seattle (SEA)	\$253.02	\$253.02	\$506.04	Standard air	Online	Oakland (OAK)	4	0 M	
Seattle (SEA)	\$426.64	\$426.64	\$426.64	Standard air	Agent-assisted	Chicago (ORD)	4	0 M	
London (LHR)	\$160.49	\$106.99	\$323.00	Standard air	Online	Los Angeles (LAX)	27	1 M	
Seattle (SEA)	\$80.00	\$80.00	\$80.00	Standard air	Agent-assisted	Dallas (DFW)	4	0 M	
San Francisco	\$111.36	\$111.36	\$222.72	Standard air	Online	Denver (DEN)	5	0 M	
Singapore (SIN)	\$311.36	\$175.70	\$311.36	Standard air	Agent-assisted	Tokyo (NRT)	12	1 M	
Seattle (SEA)	\$216.03	\$216.03	\$216.03	Standard air	Online	Washington (DCA)	13	1 M	
Washington	\$0.00	\$0.00	\$441.86	Standard air	Agent-assisted	Denver (DEN)	0	0 M	
Montreal (YUL)	\$309.53	\$154.76	\$626.00	Standard air	Online	Seattle (SEA)	18	1 M	
Washington	(\$343.26)	(\$171.63)	(\$343.26)	Special request air	Agent-assisted	Denver (DEN)	-5	0 M	
Seattle (SEA)	\$37.21	\$37.21	\$37.21	Standard air	Online	Washington (DCA)	13	1 M	
Seattle (SEA)	\$216.03	\$216.03	\$216.03	Standard air	Online	Houston (IAH)	9	0 M	
Washington	\$416.38	\$416.38	\$416.38	Standard air	Agent-assisted	Charlotte (CLT)	3	0 M	
San Francisco	\$174.37	\$174.37	\$348.74	Standard air	Online	San Diego (SAN)	3	0 M	
Seattle (SEA)	\$324.65	\$216.43	\$649.30	Standard air	Online	Detroit (DTW)	11	0 M	
Dallas (DAL)	(\$146.98)	(\$146.98)	(\$293.96)	Special request air	Online	Austin (AUS)	-2	0 M	
Dallas (DAL)	\$158.60	\$158.60	\$317.21	Special request air	Online	Austin (AUS)	2	0 M	
Dallas (DAL)	(\$158.60)	(\$158.60)	(\$317.21)	Special request air	Online	Austin (AUS)	-2	0 M	
Dallas (DAL)	\$146.98	\$146.98	\$293.96	Special request air	Online	Austin (AUS)	2	0 M	
Dallas (DAL)	(\$146.98)	(\$146.98)	(\$293.96)	Special request air	Online	Austin (AUS)	-2	0 M	
Seattle (SEA)	\$127.91	\$127.91	\$255.82	Standard air	Online	Austin (AUS)	8	0 M	



## CONTROL F(IND): TIME

Every day millions of finance professionals extract data from different platforms and reporting systems into spreadsheets to ask and answer thousands of questions. For many obvious reasons—like the need to dump and compile data and/or perform calculations within a specific data set—Excel is often the go-to tool of choice for piecing a data puzzle together, and performing deeper analysis. But this leads to using limited subsets of data for ad-hoc analysis, which only yields a glimpse of the answers you seek, and puts you in perpetual, repetitive rebuild and query cycles. It's clear: the primary hardship with this engrained manual routine is, of course, time.



As financial analytics processes and technologies continue to evolve with tools like Anaplan, Salesforce, and NetSuite, modern finance departments must improve speed to insight with resources that can prevent manual dumping and static reporting. They must find faster and more accurate ways to unify all of their data, and glean insights in real time. And now more than ever, they must scale their existing investments in technology and people to improve communication and impact throughout the enterprise.

According to a [recent Deloitte report](#), 61 percent of CFOs say the disrupter most impacting long-term business strategy is the availability of new data, and improving the ability to synthesize data for business decisions.



61%

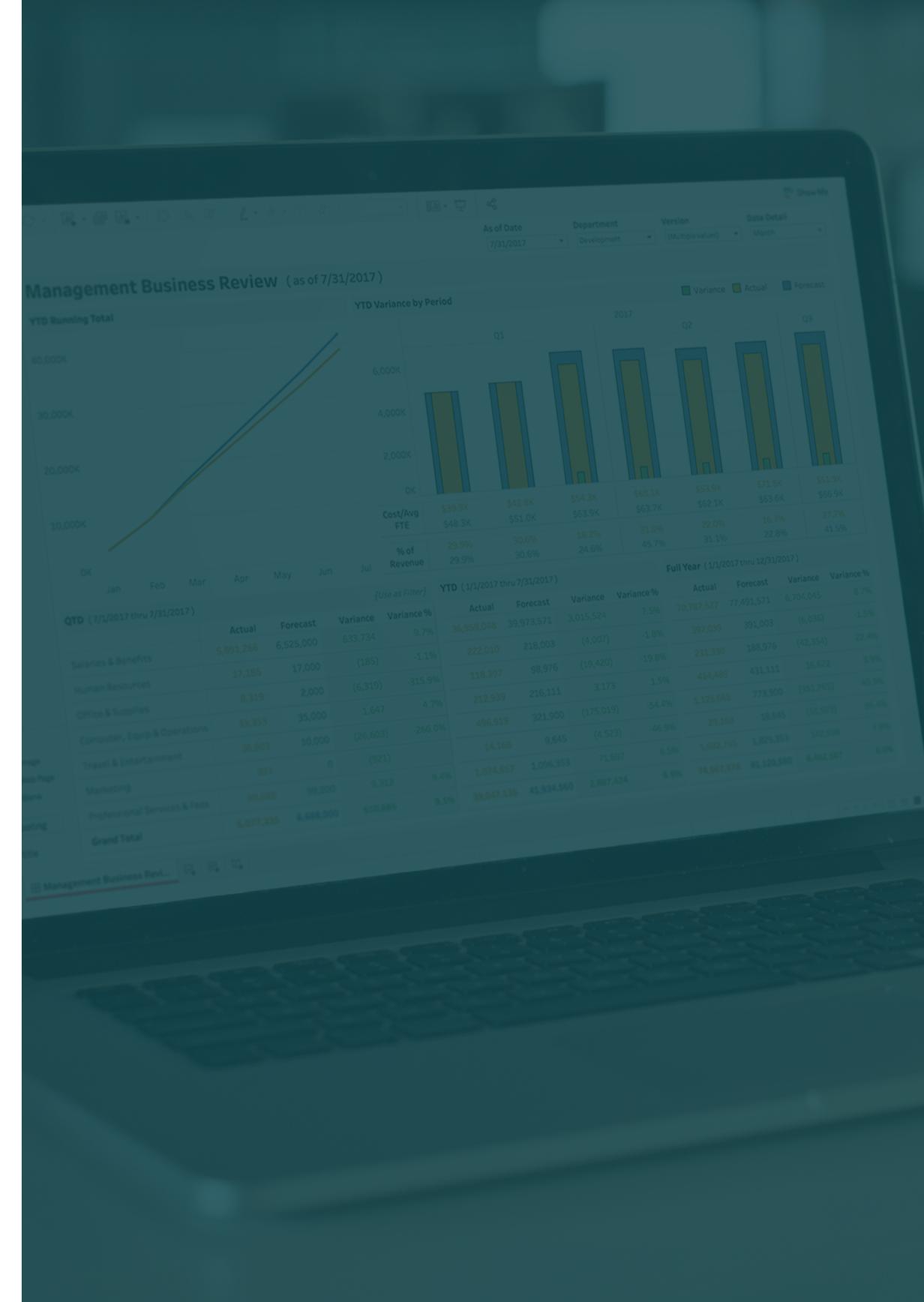
CFOs say the disrupter most impacting their long-term business strategy is availability of **new data**

## There is a better way

What if financial professionals had a faster way to complete all of their reporting and scale ad-hoc question and answer cycles? What if the finance department could improve the communication of insights to the entire enterprise—even within existing tech stacks, and large disparate databases?

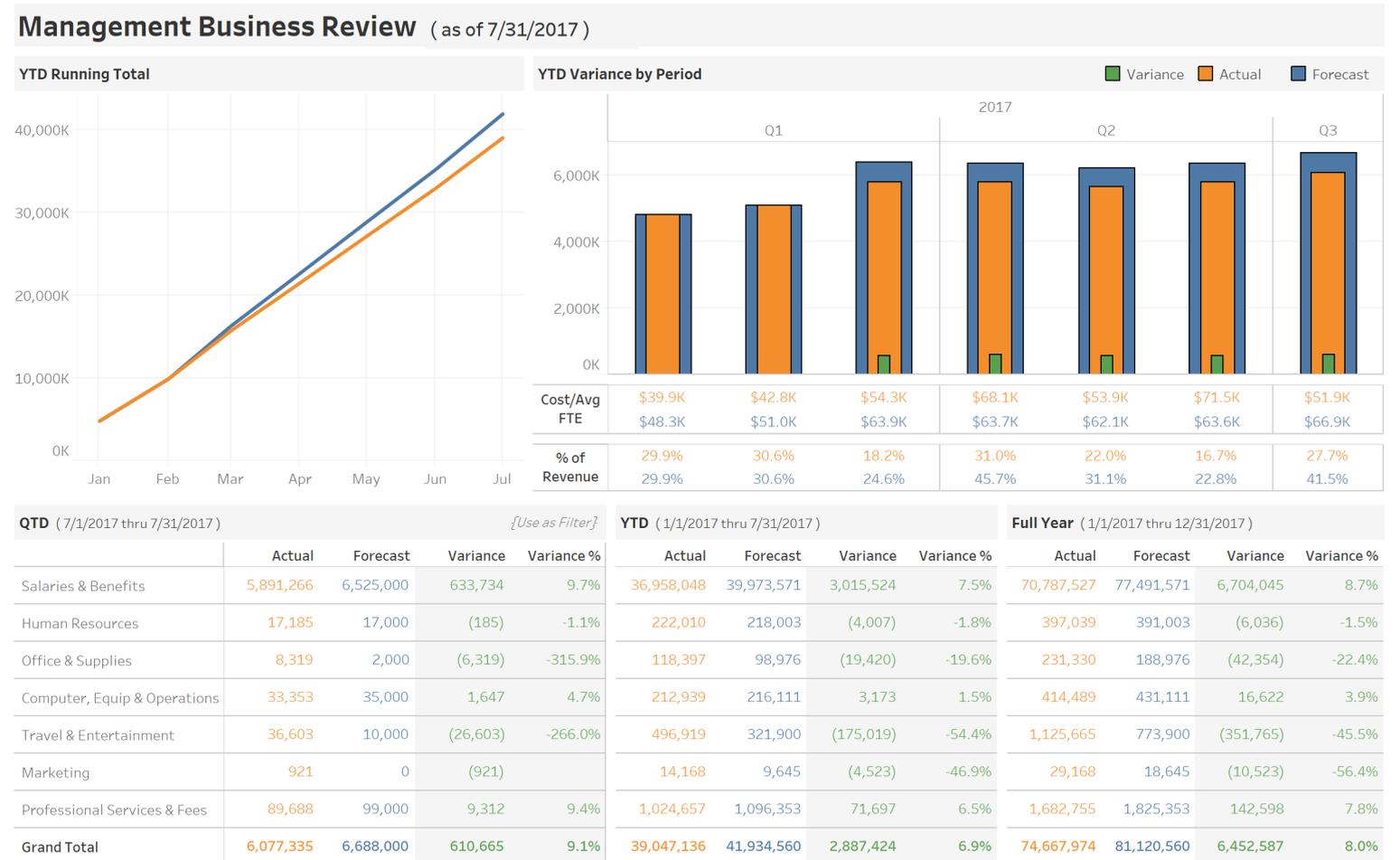
## Just add self-service visual analytics

Modern financial departments are adding self-service, visual analytics to their existing processes to deliver richer and more actionable insights to the business faster.



## A Quick Visual Example

This Management Business Review (MBR) dashboard uses Full-Time Equivalent (FTE), Expense and Revenue data from live data sources containing actuals and forecasts from completely different systems. Instead of a Financial Planning & Analysis (FP&A) team conducting manual analysis for separate departments within the organization, visual analytics provides a common place, in real-time, where people can ask and answer questions about all departmental data, on the fly, in just a few clicks. Anyone can explore key metrics and KPIs without having to start their analysis over, or run new numbers each time there's a new question. Click on the [dashboard](#) to try it yourself.



As useful as spreadsheets can be, there are ways visual analytics can be additive to improve financial analysis and save significant time across many use cases and finance teams; here are four:

**1. UNIFY AND USE ALL OF YOUR DATA**

**2. SCALE AND REPEAT ANALYSIS FASTER**

**3. INTERACTIVE, AD-HOC ANALYTICS REVEAL DATA OUTLIERS**

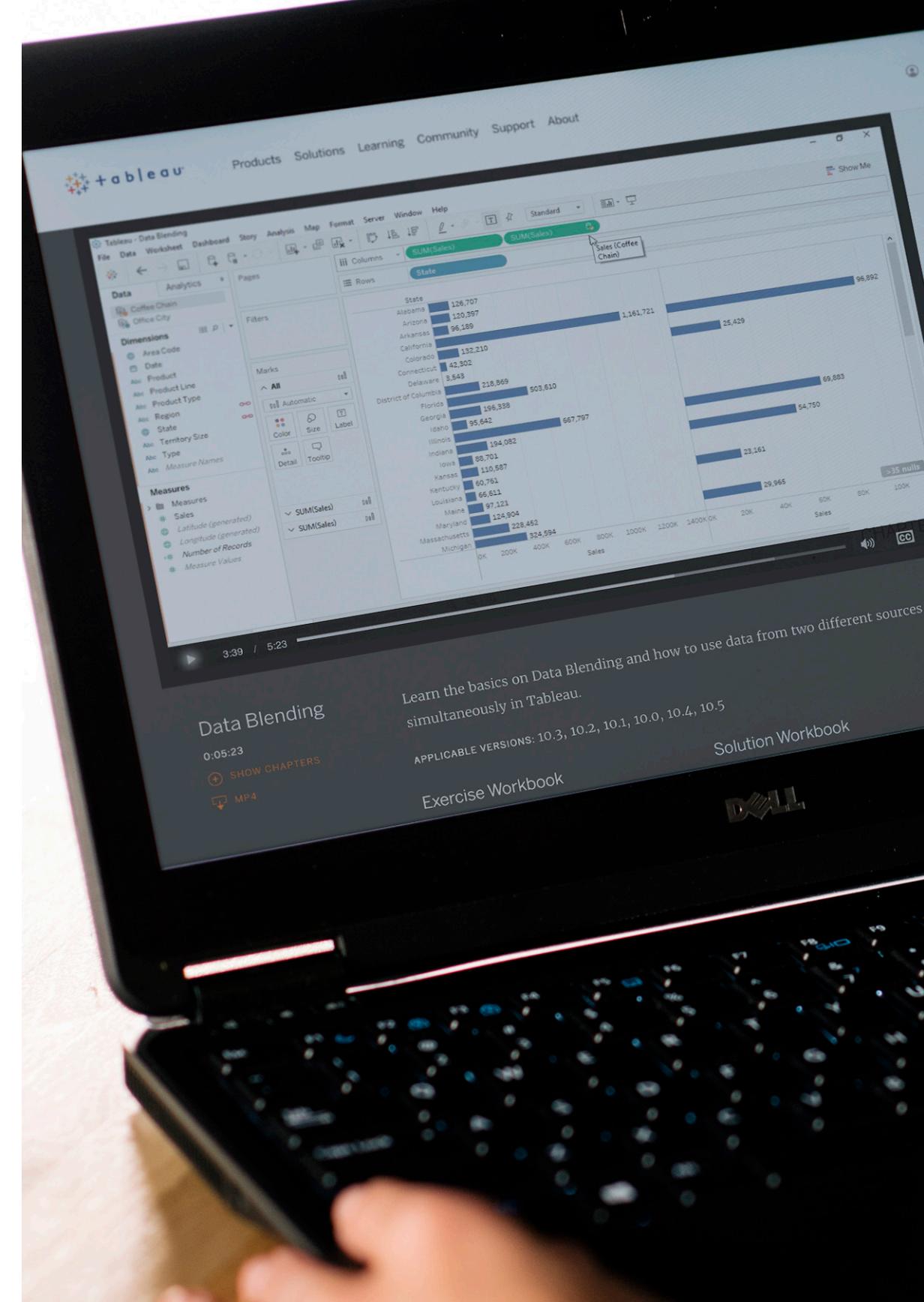
**4. IMPROVE ORGANIZATIONAL COMMUNICATION OF INSIGHTS**

## 1. UNIFY AND USE ALL OF YOUR DATA

Regardless of the size of your organization, there's financial data everywhere—and a lot of it. Whether you want to analyze live enterprise resource planning (ERP) data living in a warehouse, or transactional data living in the cloud, or still dump HR and CRM data into different spreadsheets, you can combine any and all of it within a single, visual analytics platform, and blend it on a common field to see more accurate, holistic views of your data. And you're not going to be limited on the number of data points because of a spreadsheet.

### Here's how

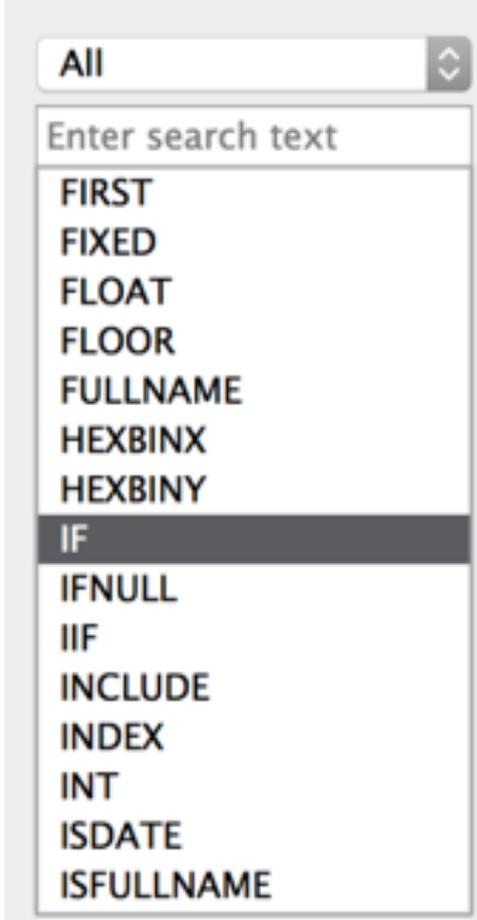
For the finance department, unifying data might seem easier said than done. Don't worry, you can actually still use your existing infrastructure and data sources. Here's a [quick tutorial](#) on how to blend your data on a common field.



## 1. UNIFY AND USE ALL OF YOUR DATA

### More time for analysis

Once you have your data connected and unified with a visual analytics platform, not only will you be able to select specific data sets on-the-fly, and choose which metrics to work with, you'll spend way more time doing deeper analysis in a visual setting. And you can still use all of the same formulas and functions you already know and love to perform calculations— like LOOKUP or IF/THEN —which means you'll do your job a lot faster.



The screenshot shows a software interface with a dropdown menu. At the top, there is a search bar containing the text "All". Below the search bar is a list of search results. The first item is "Enter search text". Below that is a list of functions: FIRST, FIXED, FLOAT, FLOOR, FULLNAME, HEXBINX, HEXBINY, IF (highlighted), IFNULL, IIF, INCLUDE, INDEX, INT, ISDATE, and ISFULLNAME.

**IF <expr> THEN <then> [ELSEIF <expr2> THEN <then2> ...] [ELSE <else>] END**

Tests a series of expressions returning the <then> value for the first true <expr>.

Example: IF [Profit] > 0 THEN 'Profitable' ELSEIF [Profit] = 0 THEN 'Breakeven' ELSE 'Loss' END

## 1. UNIFY AND USE ALL OF YOUR DATA

### A Real World Reporting Challenge: Zedi's Excel Bottleneck

[Zedi](#), a leading oil and gas technology and services company, needed to unify all of their financial data, including Microsoft Dynamics GP, to create a single source of truth.

Because product managers are responsible for profit, loss, and financial reporting on different lines of business and solutions, the finance team needed to extract data out of Microsoft Dynamics. Thus, bringing it into Microsoft Access and finally, Excel to find insights.

This arduous process led to long reporting cycles of up to two days per month for each of Zedi's seven product owners.



## 1. UNIFY AND USE ALL OF YOUR DATA

Additionally, the data “was inconsistent, and everybody had their own different graphs, and they had their own different filters,” recalls Doug Watt, a Senior Technology Product Manager at Zedi. This led to confusion between product managers and the finance team, and ultimately created distrust in the data.

### Zedi Reduces Finance Reporting by Two Weeks Per Month

With unified data and visual analytics dashboards, [Zedi's finance team](#) now acts as a single source of truth for financial reporting for the whole company. “[The finance team] controls how they pull that data out, when they pull that data out, and what data needs to be in there,” Doug said.

With visual analysis and more accurate data, Zedi reduced reporting time by two weeks per month, allowing employees to focus on more strategic projects that move the business forward.



*“[The finance team] controls how they pull that data out, when they pull that data out, and what data needs to be in there.”*

Doug Watt

Senior Technology Product Manager, Zedi

## 2. SCALE AND REPEAT ANALYSIS FASTER

Whether you've been filling your spreadsheets to the breaking point, working with smaller data sets, or running sophisticated macros and calculations in spreadsheets, you're often left waiting and miserable. You are too busy to spend cycle-after-cycle sorting out which set of data you can live without, or carving out extra time to refresh your calculations.

You just need to iterate your existing analysis more quickly—you need to be able to ask and answer your data questions without having to start over every time. Once you've unified your data, you're ready to take your analysis to the next level with visual analytics.

## 2. SCALE AND REPEAT ANALYSIS FASTER

### Outlier Management with Visual Analytics

Because our brains are hard-wired to see and understand visuals in seconds, adding them to your financial analytics process will bring speed to things as simple as finding and managing outliers.

Visual analytics will quickly reveal and isolate outliers, discover hidden patterns, show geographical locations, see trends, and model the future so you can anticipate results.

#### Hotel Stay



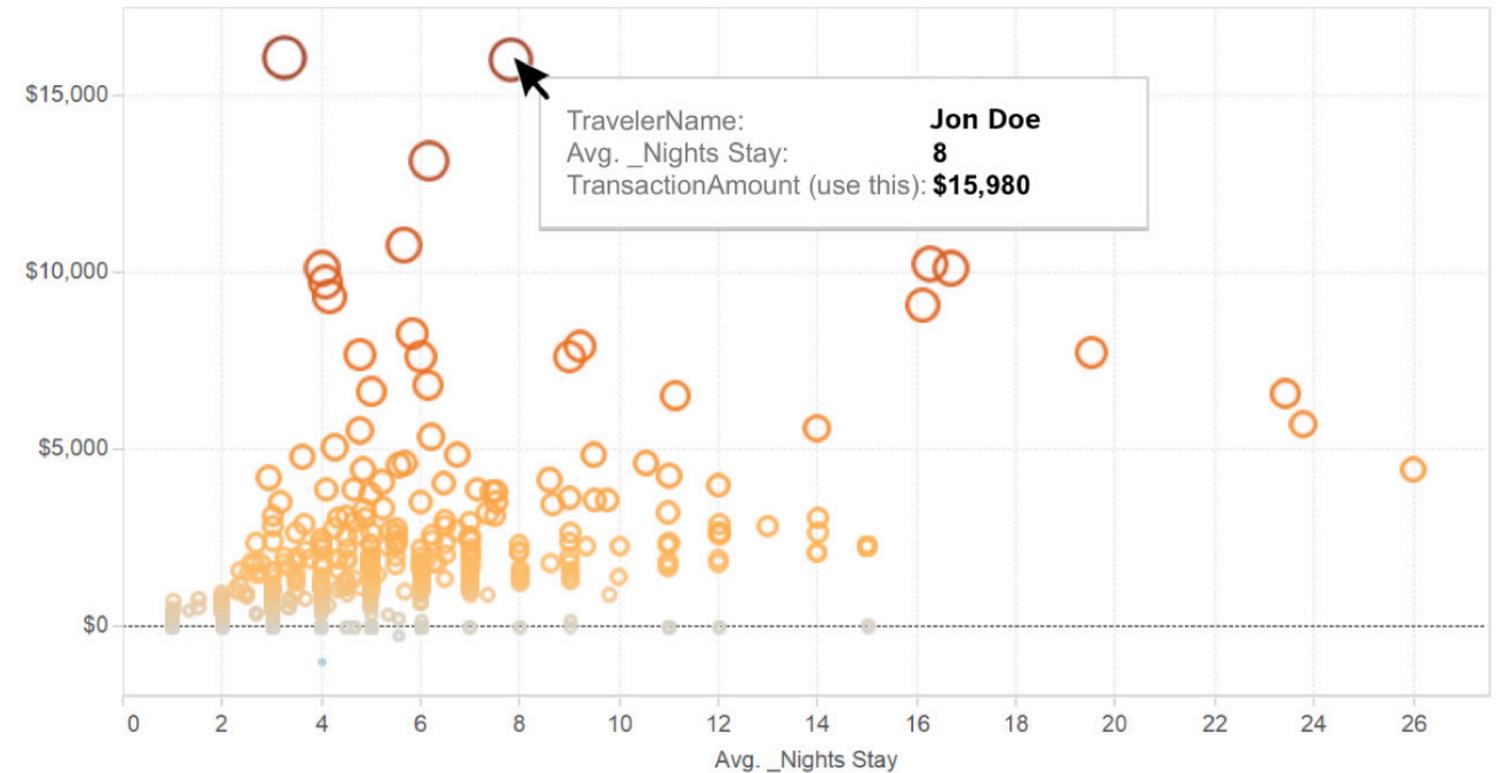
## 2. SCALE AND REPEAT ANALYSIS FASTER

### Real World Example: Travel and Expense Outliers

Here's a dashboard using travel and expense data from Egencia that shows Saturday night hotel stays. Not only can users quickly hover and identify outliers, they can click on the actual mark to drill down into the details of the data to find exact dates for each night stayed, location, hotel name, and costs incurred.

[Learn more](#) about using visual analytics with travel and expense data.

### Hotel Saturday Night Stay



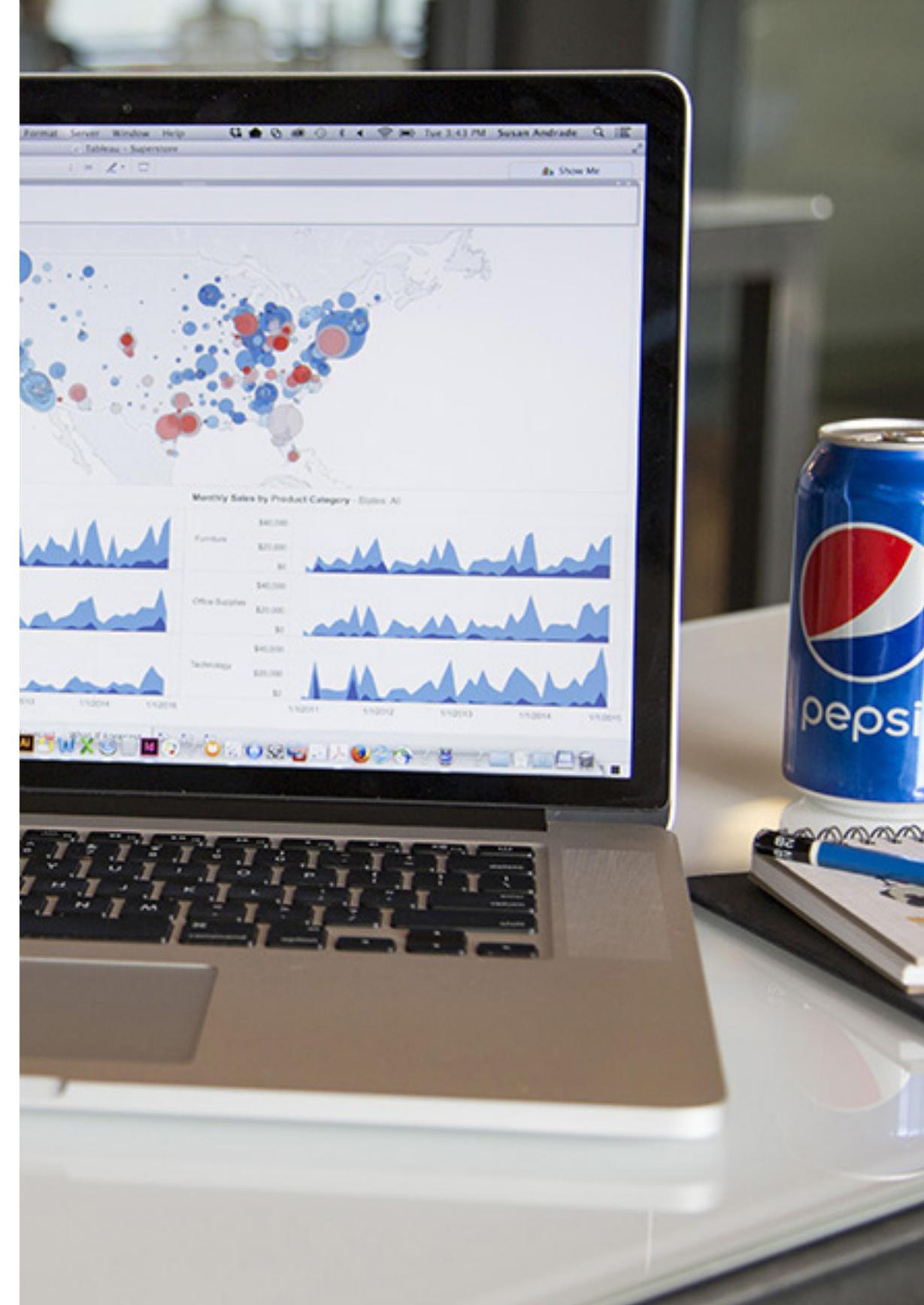
TravelerName	TravelerCate..	VendorName	Hotel City	TransactionType	Travel Start Date Time	Travel End Date Time	Week day of Trav..	Week day o f Tra..	_Nigh ts Sta y	
Jon Doe	Employee	ARIA Resort & Casino	Las Vegas	Hotel purchase	6/24/2017	6/30/2017	Sat	Fri	6	\$1,274
		Carlton Hotel Singapore	Singapore	Hotel reservation	8/27/2017	9/5/2017	Sun	Tue	9	\$2,261
		Courtyard by Marriott Tokyo Ginza	Tokyo	Hotel purchase	8/20/2017	8/27/2017	Sun	Sun	7	\$1,984
		Hyatt Regency Sydney	Sydney	Hotel reservation	3/30/2016	4/5/2016	Wed	Tue	6	\$1,157
		Novotel London Blackfriars	Hotel reservation	5/7/2016	5/17/2016	Sat	Tue	10	\$2,926	
			Hotel purchase	7/17/2017	7/25/2017	Mon	Tue	8	\$2,141	
			Hotel reservation	7/17/2017	7/25/2017	Mon	Tue	8	\$2,122	
		Hotel refund	7/17/2017	7/25/2017	Mon	Tue	8	(\$2,141)		
		Pan Pacific Singapore	Singapore	Hotel reservation	5/29/2016	6/7/2016	Sun	Tue	9	\$2,007

## 2. SCALE AND REPEAT ANALYSIS FASTER

### PepsiCo Spots Outliers and Trends Faster

PepsiCo used to churn out sales forecasts that required the Collaborative Planning, Forecasting and Replenishment (CPFR) team to build a tool in Microsoft Access that combined retailers' sales data and PepsiCo supply data; a process that could take up to six months.

The team primarily relied on Excel for analysis, creating large quantities of messy data. And the team had no efficient way to spot errors, leading to potentially costly outcomes. For example, a missing product from a report could result in inaccurate forecasts and lost revenue.

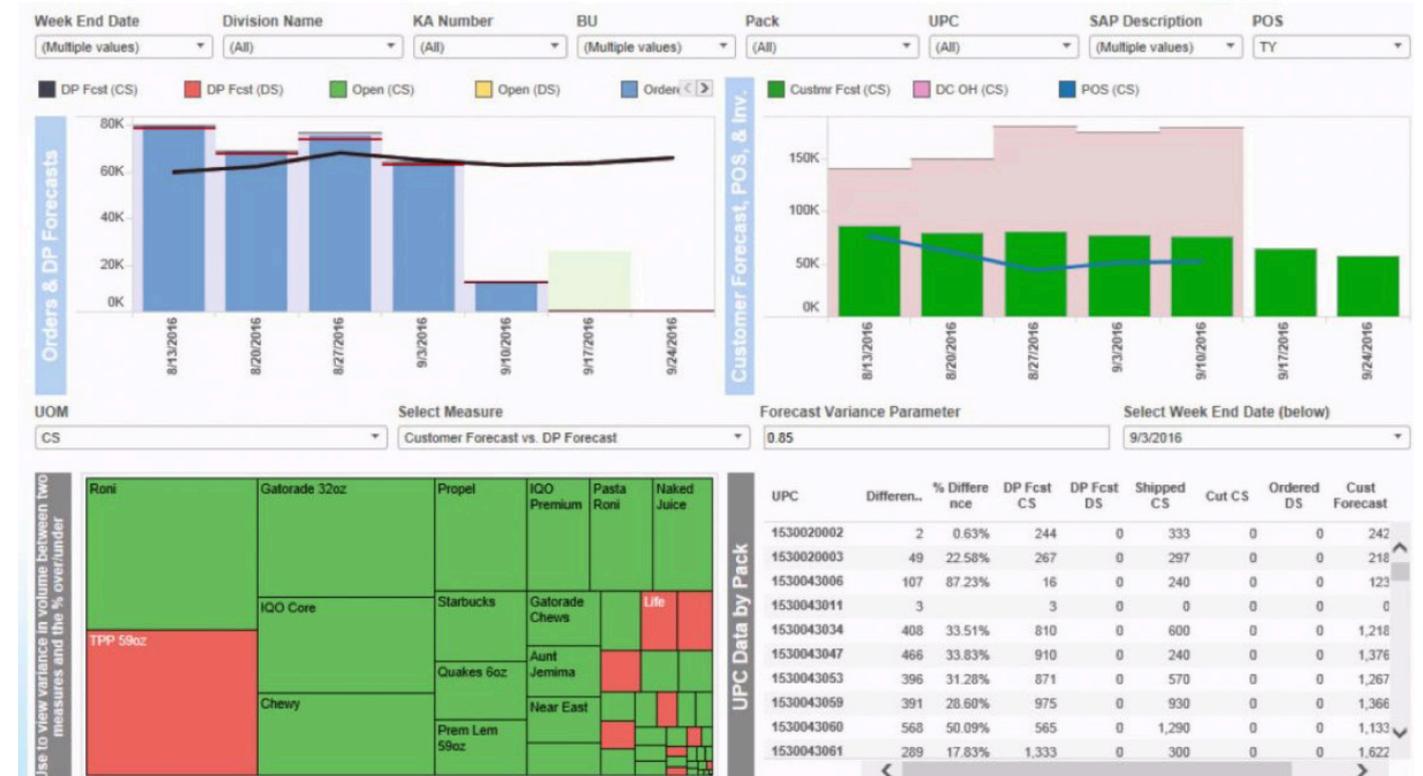


## 2. SCALE AND REPEAT ANALYSIS FASTER

Now, with unified data and visual analytics, PepsiCo has scaled their question and answer cycles for inventory, logistics, and finance for the entire organization.

With visual dashboards, PepsiCo's financial analysts are able to spot trends and outliers faster, and plan for future demand—saving the company money.

PepsiCo's CPFR team uses visual analytics to predict trends, adjust sales, and ultimately help sell more of the right product to improve their bottom line. “We’re able to turn customer data around and present it to the rest of our company, in a way that everyone can understand, faster than our competitors,” said Mike Riegling, Supply Chain Data Analyst at PepsiCo.



Here is a sample Collaborative Planning, Forecasting and Replenishment (CPFR) dashboard from PepsiCo. [Learn more](#) about how PepsiCo uses visual analytics to improve financial reporting.

### **3. INTERACTIVE, AD-HOC ANALYTICS REVEAL DATA OUTLIERS**

Visual analytics are not chart wizards—they're interactive, can connect to live data sources, and offer an ever-changing analysis of what's happening now, not last week or last month. Visual analytics can take static reports and turn them into automated and interactive dashboards that anyone can access for the most accurate insights at any time.

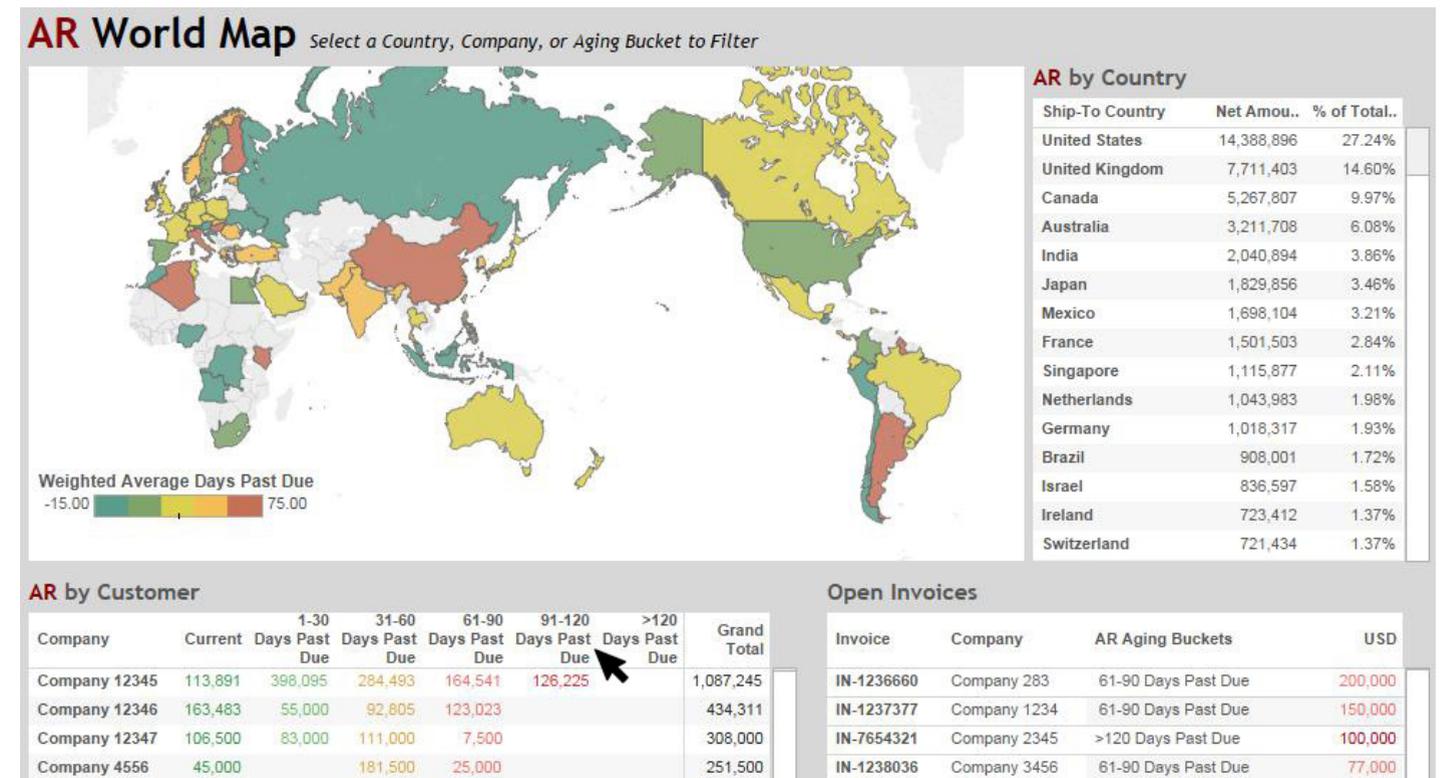
Everyone in the finance department will spend less time dealing with broken formulas, human error, and more time interacting with data in a dynamic way to explore and reveal critical insights coming from data outliers.

### 3. INTERACTIVE, AD-HOC ANALYTICS REVEAL DATA OUTLIERS

[This dashboard](#) uses data from Netsuite and unpaid invoices so an accounts receivable (AR) team can interact with it to do things like manage monthly tie-out reports, understand payment trends by country, or to keep track of delinquent invoices.

Because this workbook is interactive, as users click and explore within the visual analysis, they might find new insights they weren't even looking for. For example, if a CFO wants to know how many invoices are outstanding for more than 120 days, one click on a filter will reveal the results.

Once the filter shows the results, the user will find the specific delinquent invoices, and the accompanying details. They might also discover that the majority of the outstanding balance is from one specific company, like in this example.



Invoice	Company	AR Aging Buckets	USD
IN-7654321	Company 2345	>120 Days Past Due	100,000
IN-1234567	Company 5678	>120 Days Past Due	50,000
IN-1234080	Company 9990	>120 Days Past Due	10,445
<b>Grand Total</b>			<b>160,445</b>

### 3. INTERACTIVE, AD-HOC ANALYTICS REVEAL DATA OUTLIERS

This insight only spawns more questions. The accountant might ask “So, what’s going on with this company that’s causing these late payments?” Because visual analytics are also connected to the organization’s CRM data, it’s possible for the same user to perform more ad-hoc analysis to discover more insights about what’s going on. The CRM data may reveal that the company has several more unresolved questions—hypothetically, maybe it’s because the company was recently acquired, creating the payment delays.

What started out as a high-level question about aged invoices, snowballed into a more systemic problem that no one knew about. Revealing the data outliers with accessible, ad-hoc, visual analysis can be the game changer or ‘aha’ moment in many everyday finance and business decisions.

## 4. IMPROVE ORGANIZATIONAL COMMUNICATION OF INSIGHTS

Excel is great tool for detailed financial modeling. But what happens when the finance department needs to share these details with stakeholders in other departments?

Because most workers seated within any organization don't readily understand Excel models, adding visual analytics to the mix will facilitate greater understanding and more productive conversations for everyone. Additionally, if you share an Excel report or a static PDF, there's no way for stakeholders to ask follow-up questions in real time.

#### 4. IMPROVE ORGANIZATIONAL COMMUNICATION OF INSIGHTS

With visual and interactive dashboards, collaboration is built in as an integral step in the organization's cycle of analytics. There are no additional configurations or add-ons required to share or collaborate with data, and because users can ask and answer their own questions directly in the dashboard, there are fewer redundant emails and requests to run more numbers.

Finance users can simply publish and [share dashboards](#) online, to a server, or directly with the people with whom they want to collaborate, and they can immediately see how often reports are being viewed and used. And with live data connections, reports aren't instantly out of date—which is often the case with static Excel reports. Learn more about streamlining reporting for the enterprise in this [demo](#).

#### 4. IMPROVE ORGANIZATIONAL COMMUNICATION OF INSIGHTS

### Swedish Medical Improves Organizational Reporting Collaboration

In late 2012, [Swedish Medical](#) was looking to improve the impact of financial and other departmental analytics throughout the entire organization. “We wanted our solution to be accessible and effective for everyone in the organization, not just analysts,” said David Delafield, CFO of Swedish Medical Group.

When the initial, visual dashboards debuted and shared with small audiences in the organization, the demand for access went viral.

*“We had a lot of emails each week from people wanting to get access... Now we’re to the point where we’re bringing a lot of new users onto the platform each week and we know it’s having a big impact around business alignment and simplification. Our focus now will be on expanding views and answering new business questions.”*

David Delafield  
CFO, Swedish Medical Group

# About Tableau

To find more time and make a bigger impact in your financial analysis, you don't have to ditch your spreadsheets and existing processes all together. Integrating all of your data sources with visual analytics is easier than you think. Tableau helps people see and understand their financial data, no matter how big it is or where it's stored.

You can quickly connect, blend, clean, visualize and analyze your data the way you want— no programming skills required. Learn more about using [visual analytics for finance](#) data and start your [free trial](#) of Tableau today.

