

WHITEPAPER

Build vs. Buy: Choosing your path to a true BI solution for ERP data

A guide for middle-market controllers, CFOs and CIOs



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Introduction

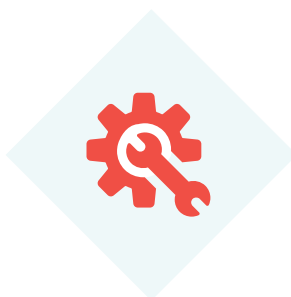
For financial leaders like you, the impact of high-quality data and reporting on your business is significant. The right insights can help you improve the accuracy of your financial plans, quickly identify trends in sales and retention, find answers to complex questions and better prepare for board meetings.

But producing the right reports with the speed, accuracy and scalability you need is no easy task. That's because today's ERP systems provide baseline financial reporting, but they don't integrate multiple data sources well. This leaves critical information from CRM, inventory, contract management and other systems out of view and creates data blind spots for SaaS, e-commerce, transportation, manufacturing, retail and service businesses alike.

To eliminate these blind spots and bring all your important data together for reporting and analytics, you often have to decide between the following approaches:



**Creating
spreadsheets**



**Building your
own BI solution**



**Buying a pre-built
BI system**

If you're like most financial leaders, you've likely tried using spreadsheets to tie your data together and produce the reports you need. And you've likely discovered that this manual, time-consuming, repetitive process commonly causes errors and does not scale. This leaves you with two viable options: build your own business intelligence (BI) solution or buy a pre-built BI system.

To help you weigh these two options and make the right decision, we've assembled a guide that examines each approach by considering the key dynamics of development time, costs, risks and ongoing maintenance needs. But first, let's start with a brief introduction of Zone & Co and a discussion of the capabilities we think are required in a true BI system for ERP data.



Who is Zone & Co?

For well over a decade, we've leveraged our deep ERP-focused experience and unique set of in-house experts to help financial leaders like you navigate their ERP challenges. We do this by providing enhancements for your ERP's out-of-the-box capabilities, customizing your system until it perfectly matches your unique needs, and providing continuous support as your business evolves.

Our solutions are built to bring multiple data sources together – including NetSuite, Shopify, Salesforce and more – into a single data warehouse for standalone use or within your preferred BI solution. Our industry experts, data engineers, and business intelligence experts have spent years creating pre-built data models and industry-specific reporting capabilities that can help businesses like yours unleash the value of your data within weeks of deployment.

With deep expertise in ERP and PowerBI systems, we've helped hundreds of companies running NetSuite move beyond saved searches and reports to produce the sophisticated reporting and analytics capabilities they need to stay ahead of the competition, improve their accountability and achieve their business goals.

Steps for building a BI solution

If you're researching the amount of work and time involved in building a BI solution for your ERP from scratch, the details may surprise you. Most people think it's as easy as buying an ERP connector, which extracts data from NetSuite and other ERP systems into a BI system for analysis and reporting. But in practice, getting a BI platform up and running is a much more laborious and technical 5-step process. In addition, there are hidden costs and complexities to building your own BI solution.

At Zone, we believe a true BI platform can help you do four things:

- **Unify multiple data sources:** including ERP, CRM, e-commerce, inventory and other data to provide accurate reports that align the C-Suite
- **Automate data extraction and modeling:** with prebuilt connectors and data models, so stakeholders have time to analyze data (not just clean it)
- **Provide up-to-date, drillable data with AI insights:** by bringing data from ERP instance and other sources into a best-in-class BI tool with embedded AI
- **Offer industry-specific insights:** with templated, industry reporting packages that have been curated by CFOs, CROs, COOs, and others within your spaces



What can a true BI platform do?



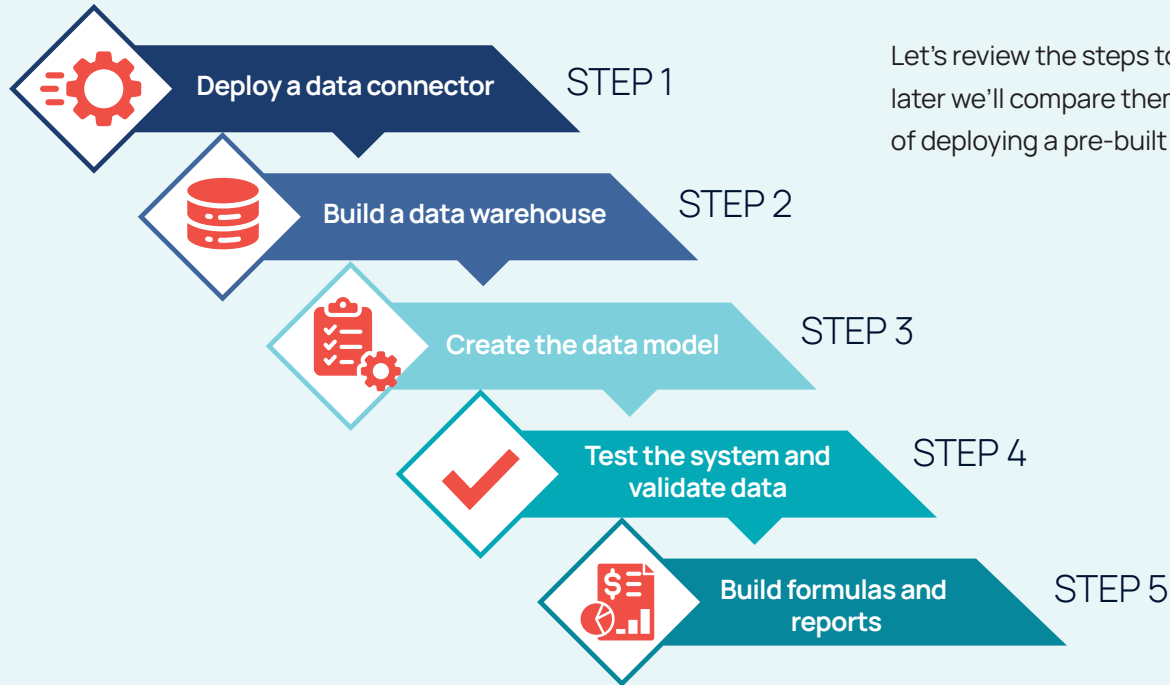


Figure 1: The steps for building a BI solution for ERP

Step 1: Deploy a data connector to start transforming data.

Most ERPs have a pre-built connector available to purchase from a third party that cost between \$5K (€4,500) and \$25K (€22,500) per year. But while configuring and deploying a connector may seem straightforward, businesses often report the following challenges with them:

- **Design limitations:** Unstructured data is not designed for usability, and altering how users view the data is a time-consuming and error-prone process that requires ongoing management. Typically, this process calls for a technical developer to implement the connector and an ERP expert to transform the data.
- **Performance issues:** Most ERPs are built to prevent data extraction, and connectors tend to encounter error after error when pulling data consistently. As a workaround, it's possible to build incremental data loading processes, but that introduces the need for a dedicated data warehouse.
- **Reliability concerns:** Every time an ERP system updates (1-4 times per year) the connector needs to be tested to ensure it's still compatible. If a third-party vendor connector fails after an update, troubleshooting can pose a challenge to even the most skilled developers.





Building a Data Warehouse

Some companies separate building a data warehouse (complete with a pre-built data model) from building business intelligence dashboards. One team will maintain the data warehouse, and another team will create the BI dashboards based on the schema within the data warehouse. As you may expect, this requires some significant internal resources – thus, many companies choose to outsource at minimum the process of extracting and transforming data (building and managing a data warehouse) to a third party, like Zone & Co.

Step 2: Build a data warehouse.

To construct a data warehouse that's capable of hosting a BI solution for your ERP, you'll need some time, resources and personnel. Here are the steps it takes to get your data warehouse up and running:

- **Choose a platform:** Decide where to build your warehouse (e.g., Azure, Snowflake, AWS) and then assign a developer—or hire a consulting firm—to build and maintain the warehouse.
- **Begin development:** Build processes to extract, transform and load data via a refresh schedule into the warehouse. Other considerations include scalability, updates and security measures.
- **Establish a monitoring system:** Implement a monitoring process to ensure the warehouse remains operational and error-free so that your reporting/analytics is never inaccurate or offline.
- **Hire a staff:** Employ or contract a team of technical developers with a deep knowledge of ERP to manage the data warehouse on an ongoing basis.



Deployment time: 6 – 12 months

Step 3: Create the data model.

A data model is a critical component of creating a BI solution as it governs how your ERP data gets organized within the data warehouse. But creating your own data model is no easy task. Here are the top challenges businesses report when they attempt it:

- **Designing the star schema:** Creating a proper schema is a delicate process that, when complete, allows tables to work as the ERP system would. The star schema must be designed so it can reconcile reporting back to the ERP, scale as the business grows and accommodate additional data sources.
- **Allowing unlimited joins:** The data model needs to be joined together to facilitate the same sequential flow of transactions as the ERP system. This means it must be designed for unlimited joins to report and analyze business processes end to end.



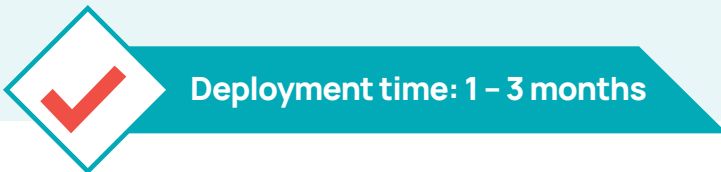
- **Creating time intelligence:** Building time intelligence across financial and operational reporting ensures that all reports reconcile back to the ERP for optimized and comparative reporting.
- **Accommodating ERP upgrades:** Any data model must keep current to prevent any loss of compatibility, which would otherwise crash the entire system. Regular testing is required before each ERP update to ensure compatibility.



▶ **Step 4: Test the system and validate the data.**

At this point, it's time to test whether or not the built BI implementation is successful in reconciling back to the ERP. After building key reports (e.g., Income Statement, Balance Sheet, Aging Reports), the newly built system will either work or not. If it works, then great.

If not, a technical developer and/or ERP expert will have to dive back into all the prior work to determine what went wrong between steps 1-3.



▶ **Step 5: Build formulas and reports/analytics.**

A BI solution is not valuable unless it produces the reports and calculates the KPIs the business needs, and it must do this accurately. To achieve this, each report needs a custom-written formula to calculate KPIs, showcase data relationships and display quantitative data the way one would expect to see it.

These formulas are usually prepared by 1-2 people with deep functional knowledge of the underlying ERP system and strong experience with BI tools. In most cases, building these reports correctly requires a 2-person team.

If reports do not correctly capture the company's industry-specific requirements, the team will need to start over and recreate the calculations and reports.



When does building a BI solution from scratch make sense?

While buying a pre-built BI solution is often the best decision from a cost and time standpoint, there are some cases in which it is more beneficial to build from scratch. Some of these situations include:

- **Data privacy:** If your data is regulated (e.g., patient or government data) to the extent that you must prevent non-employees and third parties from accessing it, in-house BI development is likely the only option.
- **Unique business models:** Most ERP business models – such as finance & accounting, software/SaaS, supply chain & inventory, and professional service project planning – are great fits for buying a pre-built BI solution. However, if your reporting needs fall outside of these functions, you may choose to build your own.
- **Operational data sources:** If the majority of your data resides in operational data sources rather than an ERP, it may make more sense to buy a data warehouse and import ERP data (along with other data, like Salesforce or Shopify) to create your own BI reports.

Buying a BI solution for an ERP: It's about time.

Rather than incurring the expenses, delays and technical hurdles of building a BI solution from scratch, a more expedient option is to purchase one from a company that specializes in building and implementing BI tools. As we'll outline below, this can be significantly faster, less complex and far more cost effective than building your own BI solution. Here are several benefits of buying a pre-built BI system.

▶ **Benefit from industry best practices.**

The best pre-built BI solutions are developed by experts who know finance, know data, and know your business model. While there are many BI vendors in the market, selecting the right one can help ensure your BI reports provide the types of reporting and data merges you might not think to ask for, but provide rich insights for your industry that can prevent loss or predict smart decisions. These can include specific reporting packages for software/SaaS companies, inventory-based companies and project-based companies.

▶ **Get the right components.**

A pre-built BI solution should include at a minimum:

- A pre-built ERP specific connector
- A data model that replicates your ERP system's data structure
- A pre-built set of ETL processes/data warehouse
- A large library of pre-built reports that are specific to your industry



▶ **Access the full-service insights you need**

Instead of hiring developers to create and maintain the solution from the ground up, buying a BI tool should come with optional professional services. If you prefer to outsource your report customizations, you can simply reach out for help. Or easily subscribe to professional services on an ongoing basis, so you know you always have an on-hand, within-budget resource to adjust your data dashboards as your business evolves.

▶ **Accelerate your BI rollout.**

The most significant benefit of buying a BI tool from a vendor is that it creates a much faster path to value than building your own. The best pre-built BI solutions have been pressure-tested by peers in your industry – so you can gain meaningful insights as soon as they are implemented. Table 1 showcases the various time factors involved in building your own BI system versus buying a pre-built solution.

The timing considerations for building vs. buying a BI solution

	Build	Buy
Build/deploy a connector and transform data	4-6 months	Included in platform
Build a data warehouse	6-12 months	Included in platform
Build the data model	2-4 months	Included in platform
Testing and data validation	1-3 months	1-2 days
Build baseline KPIs and reports	3-6 months	Many platforms include pre-built reports
TOTAL	1-2 years	3-6 weeks

▶ **Simplify sharing.**

Business insights are meant to be shared, but many of the stakeholders that need them don't typically have access to NetSuite, and do-it-yourself BI solutions don't make sharing and customization easy. With the right pre-built solution, your users can subscribe to the reports they need for automatic email updates, import them into PowerPoint, share them on Teams – and much more. This helps you get the right report, in the right view, to the right stakeholder at the right time. And it can all be done without adding expensive NetSuite licenses.



Conclusion

When deciding whether to build or buy software, there's one key question to ask:

Is building from scratch going to result in a differentiated enough product from those that already exist?

If the answer is no, you're probably better off buying software because the benefits of building are minimal when compared to those of pre-built solutions that have evolved over several years. For complex software like BI solutions, the time and costs required to build from scratch are typically not justified, particularly when compared to pre-built solutions that are built by experts who specialize in your ERP system.

About ZoneReporting

ZoneReporting is the only NetSuite- and Microsoft-approved provider that delivers best-practice Power BI dashboards and reports specific to your industry. ZoneReporting provides a completely replicated instance of NetSuite and other sources with 99+ pre-built reports designed by former CFOs and COOs. This unites stakeholders by bringing customizable reports, unrivaled insights and answers to the toughest business questions within easy reach.

- ▶ **Tailored reporting** designed by C-suite reporting experts
- ▶ Pre-built integrations with **Salesforce, Google Analytics, Google AdWords** and additional integrations
- ▶ Fast implementation in **weeks**, not months
- ▶ **Unlimited joins across NetSuite** – for example the ARM module, display revenue by item across the revenue management module (i.e., sales orders through revenue arrangements/elements, revenue plans and journals)
- ▶ Reconciliation with NetSuite – this package was built by NetSuite experts, and the reports **reconcile back to your NetSuite data from day one**

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