

2018 STATE OF EMBEDDED ANALYTICS REPORT

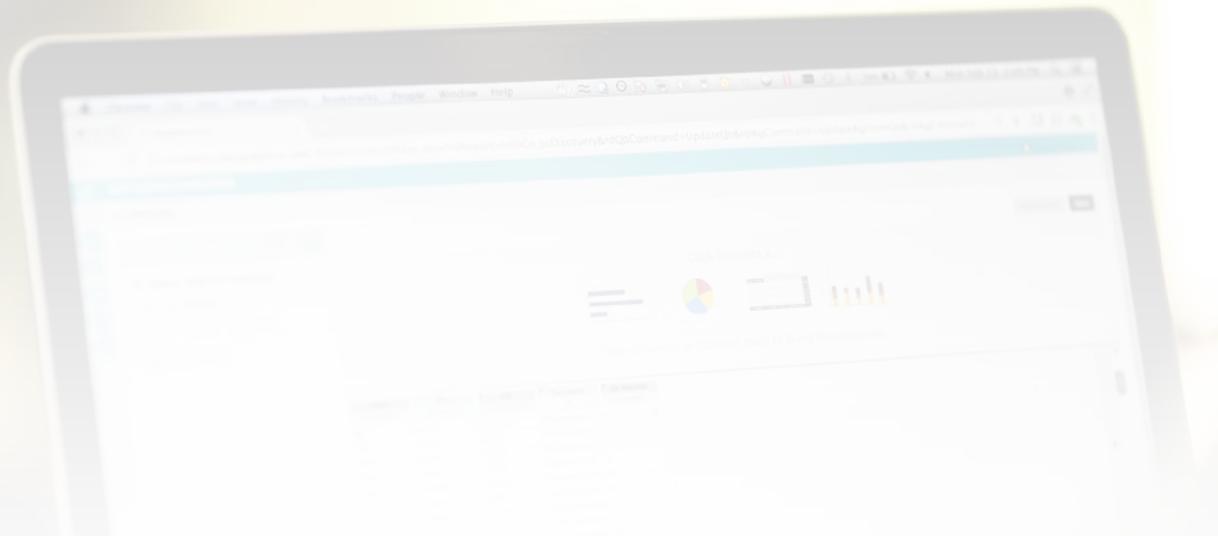
The Sixth Annual Review of Embedded
Analytics Trends and Tactics





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FOREWORD

Jen Underwood, Principal Consultant, Impact Analytix

Analytics is everywhere. From consumer gadgets, intelligent things and applications to the rapidly expanding Everything as a Service (XaaS) subscription economy, analytics has been ubiquitously embedded into all areas of our lives.

In a digital era fueled by data and automation, analytics has evolved from an afterthought to a necessity. Companies no longer have the time or luxury to treat analytics as a standalone project. To survive and thrive, intelligence needs to be pervasively integrated into the entire customer journey, operations, products, and services.

I've seen the importance of embedded analytics firsthand in my experience working for one of the largest technology firms in the world. The company was making a shift to a SaaS (Software as a Service) model—which requires adopting new ways of thinking, changing organizational models, constantly measuring, and adapting swiftly to subscriber usage signals. Adopting a nimble SaaS mindset helps companies innovate quickly.

While I was at this company, new cloud services were developed in weeks and upgraded daily. We would profit or perish by our ability to grow an active subscriber base and increase monetization over time. Reduced barriers to experiment with on-demand cloud technologies combined with lower switching pains forced us to be proactive. Customer success, not field sales, drove the most revenue.

We needed to make our SaaS app “sticky”—to deliver more value with every single subscriber interaction. One of the most significant ways we did this was with embedded analytics. By embedding analytics into

the foundation of our app, customer success, technical support, product teams, marketing, investors, and our delighted subscribers all reaped continuous rewards. I can't imagine how we would have ever survived without it.

That's one reason I'm pleased to present the annual State of Embedded Analytics Report from Logi Analytics. This year's report explores the top benefits of embedded analytics, the latest trends, advantages of different development methods, and what the future of analytics looks like.

An interesting finding this year is the ability to slash the time from insight to action. Embedded analytics informs decision makers while they're in the flow of current thought processes within apps—without losing focus or context—and makes every moment count. In the [2017 State of Analytics Adoption Report](#), over 83 percent of business professionals expressed a strong desire to stay in one application, when and where a decision is needed, instead of wasting precious time by switching apps. In this 2018 State of Embedded Analytics Report, survey participants reiterated those sentiments.

Another key finding in this year's survey: 90 percent of respondents indicated that embedded analytics has allowed them to increase adoption. Why? People resist change. By embedding analytics invisibly into applications people already know, use, and love, change is minimized and value is maximized. The elusive, magical adoption formula is simple: When applications deliver more value, they get more usage.

Embedded analytics also helps companies master efficient customer acquisition and retention. This is crucial. According to a recent McKinsey study¹, "Grow Fast or Die Slow," company growth yields greater returns and matters more than margins or cost structure. If a software company grows less than 20 percent annually, there is a 92 percent chance of failure.

Of course, growth isn't the only important measure of company success. Keeping your existing customers is just as critical. Depending on your industry, acquiring a new customer can be anywhere from five to 25 times more expensive than retaining an existing one².

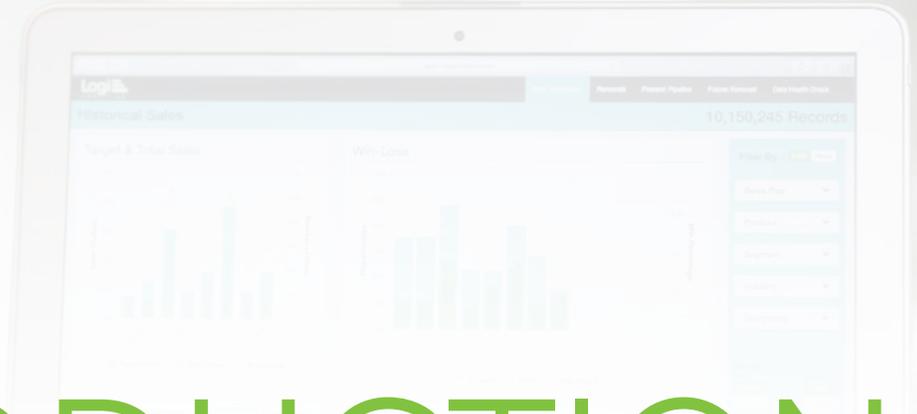
In terms of customer acquisition and retention, embedded analytics unquestionably boosts business. According to this year's survey, 92 percent of respondents reported an increase in competitive differentiation, 90 percent reduced customer churn, and 91 percent improved win rates.

Finally, this year's report delves into participants' decisions to buy or build embedded analytics. Logi examined three different approaches: "bolt-on" analytics solutions, custom code, and a combined development approach. Ultimately, the combined approach outperformed bolt-on and pure custom development across nearly every evaluated measure. That insight alone is a key lesson learned.

Never underestimate the value of embedding analytics or providing customers an option to dig deeper into their data in the digital era. Deliver the best of both.

1 <https://www.mckinsey.com/industries/high-tech/our-insights/grow-fast-or-die-slow>

2 <https://hbr.org/2014/10/the-value-of-keeping-the-right-customers>



INTRODUCTION

About the State of Embedded Analytics

Every year since 2013, Logi Analytics has set out to independently discover the state of embedded analytics. The sixth annual **State of Embedded Analytics Report** provides insights for those that care about the future of analytic applications.

This year, we again surveyed more than 500 people who shared their perspectives on how they are embedding analytic capabilities to meet ever-changing market needs. Respondents included members of product management, product development, software engineering, IT, and executives from both commercial software vendors as well as non-commercial IT-managed applications used by internal staff and partners.

The majority (73 percent) of respondents are from North America, while 26 percent are from the United Kingdom. Less than 7 percent identified themselves as customers of Logi Analytics.

Why Embedded Analytics Is Crucial for Software

This year's survey shows analytics has become a foundational requirement for any application. More than 85 percent of respondents say they have embedded analytics within their applications. In fact, it's increasingly difficult for applications to compete without offering analytics.

Why? Because embedding reduces the insight-to-action gap by weaving analytics into the context of business applications on which users already rely. In turn, this drives user satisfaction, application stickiness, and revenue.

Embedded analytics has become so important that teams estimate it contributes 51 percent of an application's total value. As a result, the pace of innovation has vastly accelerated as companies seek the next great feature to differentiate their software and drive customer value—leading to seismic shifts in analytics.

Embedded analytics makes up 51% of an application's total value.

This year's survey points to three major trends in the world of analytics.

1: Application teams see substantial business benefits from embedded analytics

Every application team today—whether they're an Independent Software Vendor (ISV) working on a commercial application or an IT team working on an internal application—faces the challenge of delivering more valuable software to end users. One way to do this is with embedded analytics. But does it work?

According to this year's survey results, yes. Embedded analytics leads to increased user satisfaction, improved user experiences, stickier applications, and (especially crucial for ISVs) higher revenue.

2: Leading companies are evolving analytics beyond basic features

While every application has a minimum requirement to "offer analytics," forward-thinking companies recognize the opportunity to differentiate themselves. They're going beyond basic capabilities, like interactive dashboards and data visualizations, and embedding sophisticated features such as predictive analytics.

As this year's survey shows, when an application includes unique capabilities, it's able to further differentiate itself from competitors and drive more value. This trend shows no sign of slowing down. We expect more innovative features will emerge and the gap will continue to widen between applications evolving their analytics and those sticking with the basics.

3: Building analytics without help is no longer an option

Application teams have three options when it comes to embedding analytics; build in house, buy a solution, or take a combined approach. Each approach comes with some benefits and drawbacks.

- **BUILD:** By relying on open-source components and custom code, build solutions empower developers to create sophisticated applications that surpass the capabilities of other solutions. But the costs and resources of maintaining and updating the analytics over the long term are unsustainable for anyone except extremely large companies.
- **BUY:** Buying a solution and bolting it onto your product means you can deliver basic analytics features quickly. But most of the out-of-the-box data discovery solutions fail to deliver the breadth of capabilities of build or combined approaches.
- **COMBINED APPROACH (BUY AND BUILD):** Taking a combined approach involves purchasing an analytics development platform and customizing it. Compared to building, application teams taking a combined approach are able to get to market faster and reduce the long-term resources needed for maintenance and updates. Compared to buying a bolt-on solution, teams are able to completely integrate the look and feel of their analytics with their existing application and deploy sophisticated capabilities.

Historically, if an application team chose an approach that failed to deliver results (advanced features, more revenue, customer satisfaction), they could refactor their application and start over. However, this year's survey indicates that companies no longer have time for do-overs. New capabilities are being integrated (and commoditized) faster than ever before, and the competition is creating enormous pressure—making it nearly impossible to monetize late-to-market capabilities.

How Companies Capitalize on Analytics

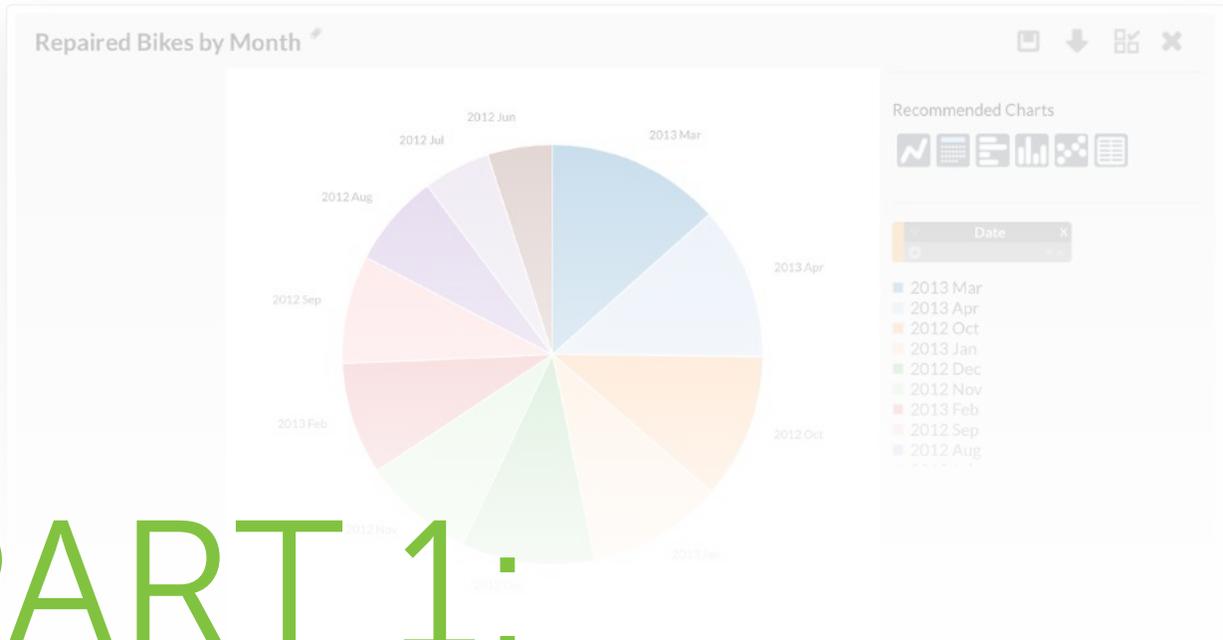
This report will examine the latest survey results and outline how teams should approach developing their analytics.

Part 1 explores the key benefits of embedding analytics.

Part 2 examines how companies are evolving their analytics to offer the most value to customers while standing out in the market.

Part 3 looks at how the development approach a company chooses affects its ability to increase value and remain competitive.

The Conclusion provides three action items you can follow to jump-start your analytics initiatives.



PART 1: THE VALUE OF EMBEDDED ANALYTICS

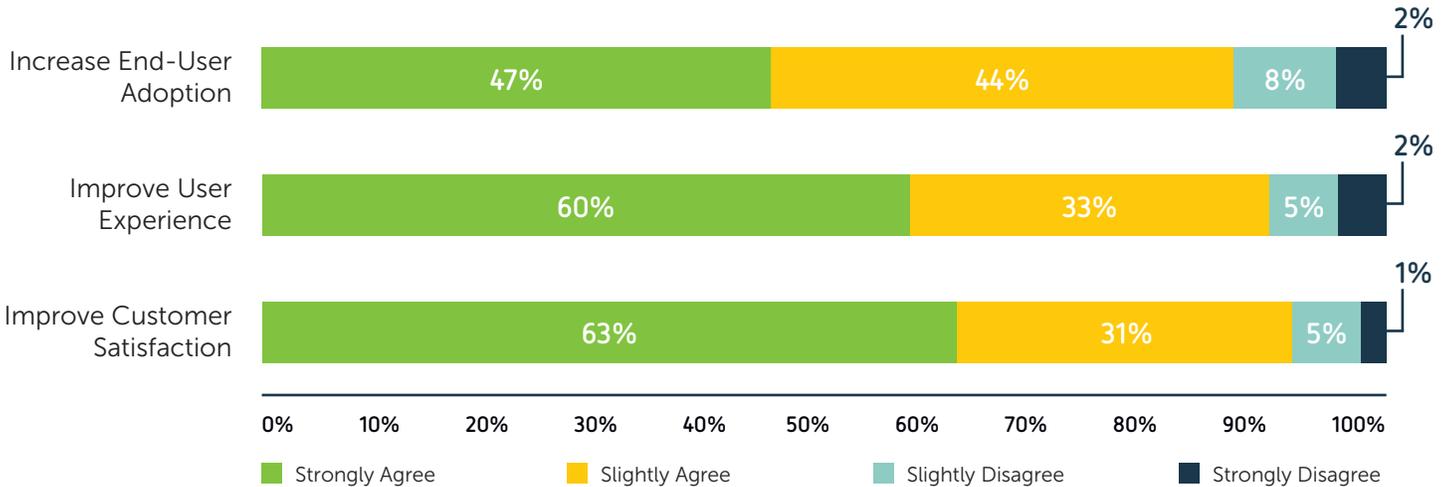
Today, every application team is tasked with creating useful, immersive products that reduce or eliminate the need for users to leave the application.

As this year's State of Embedded Analytics survey demonstrates, most applications are turning to embedded analytics to meet this goal. Read on to discover the key benefits of embedding analytics.

Benefit 1: Make End Users Happy

Survey respondents indicate that embedded analytics has overwhelmingly allowed them to satisfy their end users by improving the user experience, boosting satisfaction, and increasing adoption.

To what extent has embedded analytics helped you...

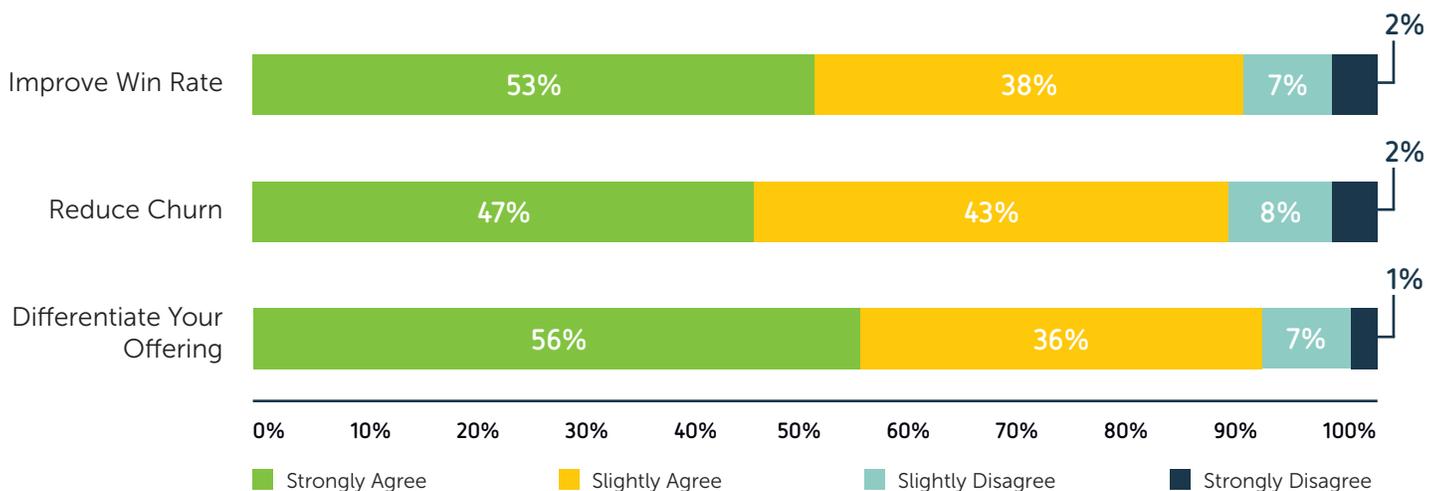


Application teams are often asked to add new capabilities and features without knowing how users will receive them. The survey results confirm that embedding analytics is well worth the investment.

Benefit 2: Gain a Competitive Edge

This year's survey finds more than 85 percent of respondents offer embedded analytics in some form. It's nearly impossible to ensure user adoption or compete in a broader market without it.

To what extent has embedded analytics helped you...



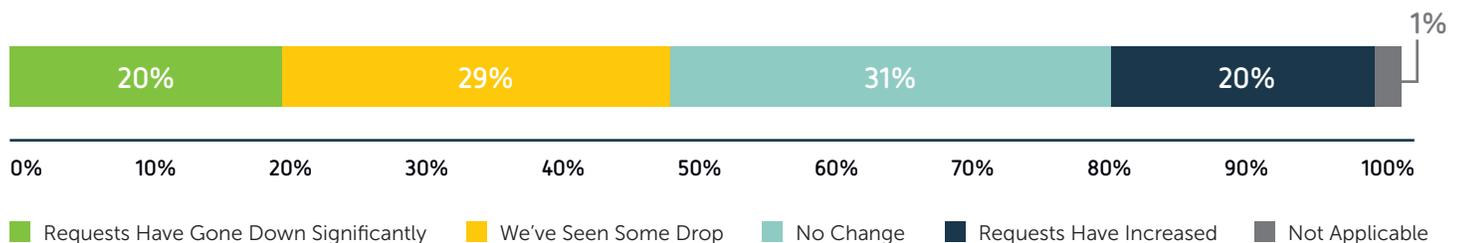
Ninety-two percent of respondents report an increase in competitive differentiation because of embedded analytics. Most companies also see benefits in reducing customer churn (90 percent) and improving win rates (91 percent).

Benefit 3: Free Up Development Resources

Inevitably, giving end users more information means they'll eventually ask for new visualizations or more data sources in the application. When users can't answer their own questions, they send ad-hoc requests to application teams and IT departments. This eats up developers' time and resources, distracting them from the core Intellectual Property (IP).

By embedding self-service analytics, organizations can empower users to get the information they need without asking for help. This year's results show that nearly 50 percent of respondents have reduced the number of ad-hoc requests they receive by embedding self-service analytics.

How has embedding self-service analytics affected the number of ad-hoc requests you receive?



Benefit 4: Boost Value and Revenue

Survey respondents report that more than half of their applications' value comes from embedded analytics. What's more, 96 percent say embedded analytics has helped them increase overall revenue. And 68 percent say they're able to charge more for their products because of the value embedded analytics brings.

51%
application value attributed to embedded analytics

Unfortunately, stagnant analytics fails to drive either value or revenue. To maintain increased value, companies must continue to invest in analytics. Fortunately, this year's survey shows they are:

78%
continue to invest in embedded analytics

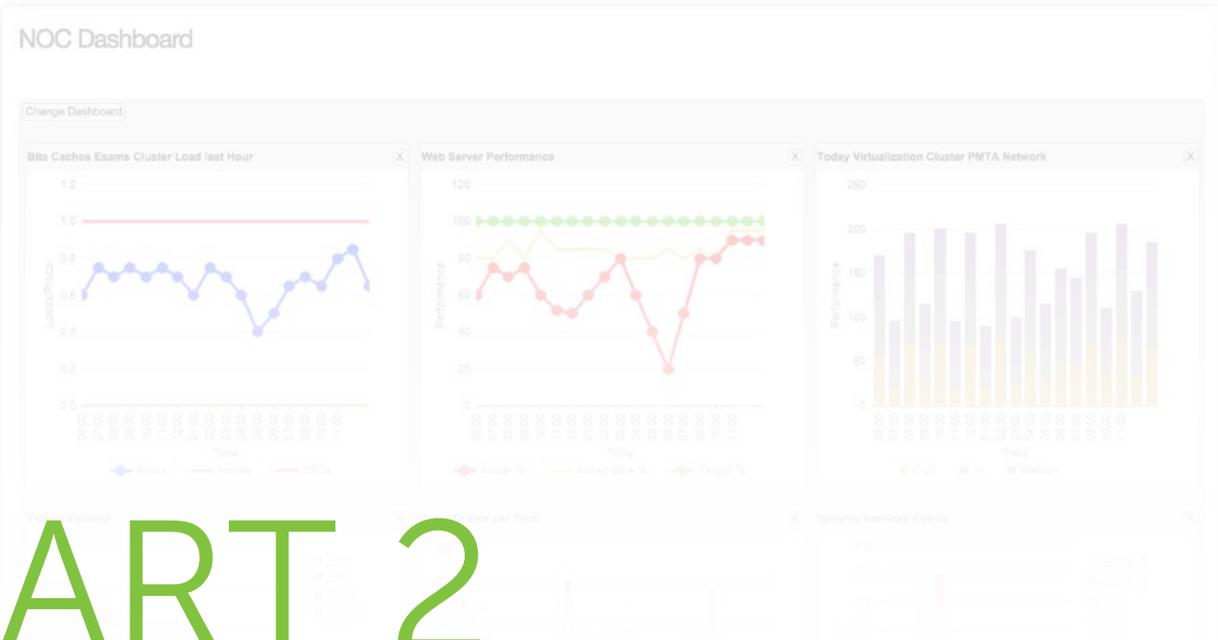
- Seventy-eight percent of companies plan to either increase or maintain spending on embedded analytics in the next year.
- For companies that are **not** currently embedding analytics, 29 percent have decided to increase their investments in the next year.

Benefit 5: Differentiate With Sophisticated Features

While the majority of applications today deliver basic analytics features—dashboards, reports, and visualizations—more advanced innovations, such as predictive analytics, are on the horizon. We asked respondents about a range of features, including five capabilities that are especially forward looking:

- Advanced or predictive analytics
- Ability to kick off a new workflow
- Natural language generation
- Ability to write back to the database
- Artificial intelligence (AI)

Application teams embedding these sophisticated capabilities become stronger competitors in their markets. They're able to differentiate their applications from the competition, improve win rates, and reduce customer churn better than products offering only basic features.



PART 2

ANALYTICS CAPABILITIES ARE EVOLVING

The baseline requirements for embedded analytics are rapidly evolving. Where applications used to get away with offering basic capabilities in separate tabs or even separate apps, they now have to—at a minimum—embed analytics features in their software.

This year’s survey shows the capabilities ceiling is continuing to rise. More applications are delivering innovative features such as workflow capabilities, predictive analytics, and artificial intelligence. And companies that deliver advanced capabilities see higher user satisfaction, increased user adoption, and more revenue opportunities.

Applications with sophisticated features see substantial business benefits

When embedding analytics, application teams can choose to include a range of capabilities—from interactive dashboards and data visualizations all the way up to embedded workflows and predictive analytics. Innovative features usually take more time to deliver than basic ones, but they're also the capabilities that will deliver substantial business benefits.

As shown in this year's survey, applications with sophisticated functions have a solid advantage over basic applications. They're more able to differentiate their software, reduce customer churn, and increase overall revenue, among other benefits.

Business Effects: "I strongly agree embedded analytics helps our company..."

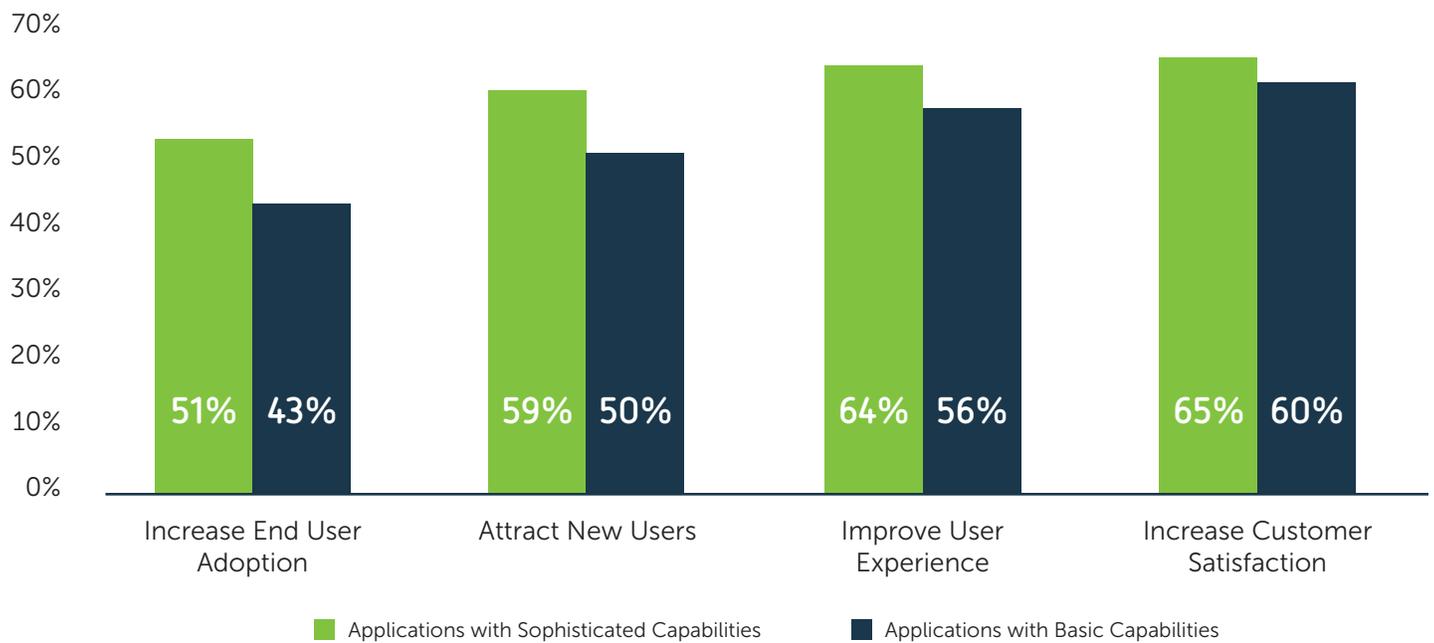


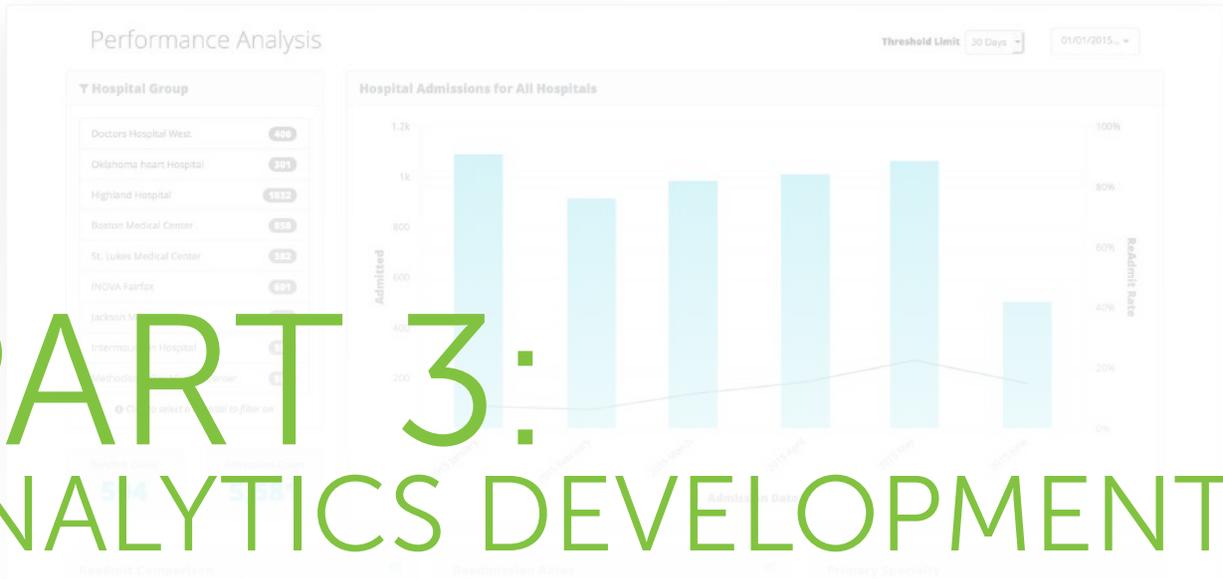
Embedding sophisticated features improves user satisfaction and increases adoption (as shown on the next page). As customers increasingly rely on the application, companies can then justify premium pricing tiers. Another benefit of innovative analytics is the competitive differentiation. Modern features set your application apart and make it nearly impossible for competitors to catch up.

Improving the user experience

This year, we see a clear difference in the abilities of applications with sophisticated capabilities to satisfy users, as compared to applications with basic features.

User Experience Effects: "I strongly agree embedded analytics helps our company..."





PART 3: ANALYTICS DEVELOPMENT PLATFORMS KEEP APPLICATIONS AHEAD OF THE MARKET

When starting a new embedded analytics project, application teams can choose to build a solution themselves; buy a bolt-on solution from a data discovery vendor; or take a combined approach by buying an analytics platform and customizing it. As we outlined in the introduction:

- **BUILD:** By relying on open-source components and custom code, build solutions empower developers to create sophisticated applications that surpass the capabilities of other solutions. But the costs and resources of maintaining and updating the analytics long term are unsustainable for anyone except the largest companies.
- **BUY:** Third-party solutions provide speed to market and support basic analytics features. But without customization, they fail to deliver the breadth of capabilities of build or combined approaches.
- **COMBINED APPROACH (BUY AND BUILD):** Taking a combined approach involves purchasing an analytics development platform and customizing it. This method lets companies get to market faster than building and supports more sophisticated capabilities than buying a bolt-on solution.

According to survey respondents, the combined approach leads to a more successful and sustainable analytics solution compared to building yourself or buying a bolt-on tool.

Homegrown solutions limit applications today and in the future

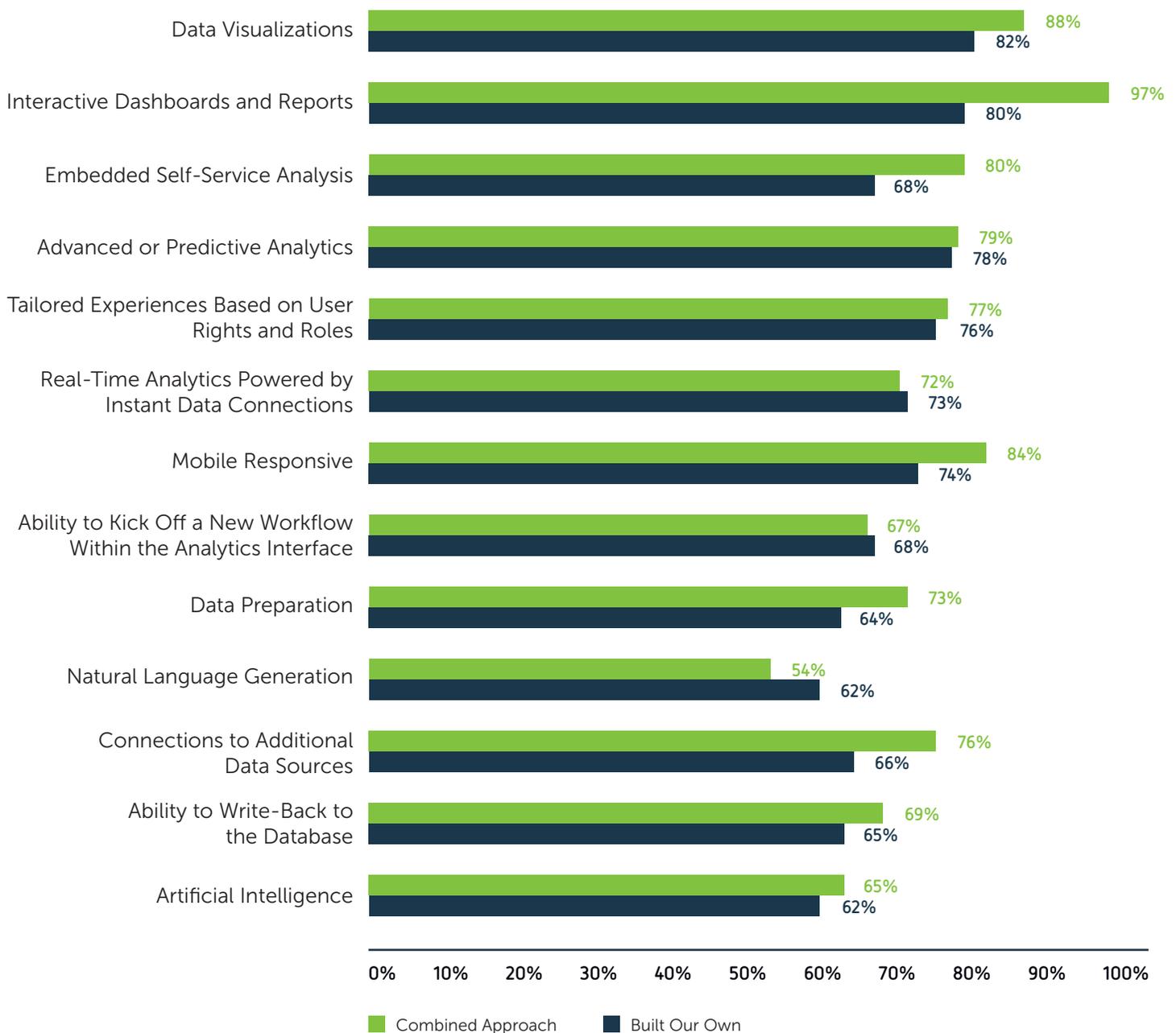
The first instinct for many software teams is to build exactly what they want using open-source code libraries and charting components. This worked just fine until customers began expecting more sophisticated capabilities. Today, homegrown solutions are failing to keep up with market innovation. Of this year's survey respondents, teams that build a solution on their own are less likely to offer advanced capabilities versus those that take a combined approach. They're also at a disadvantage when offering mobile responsiveness, predictive analytics, natural language generation, and the ability to kick off a workflow.

Companies with a combined approach currently offer more robust functionality than homegrown solutions



It's clear companies leveraging an analytics development platform are ahead of homegrown solutions today—and will continue moving ahead. Of the respondents who haven't added specific features yet, those leveraging a platform will more quickly add them in the coming year. This is true across nearly every feature category.

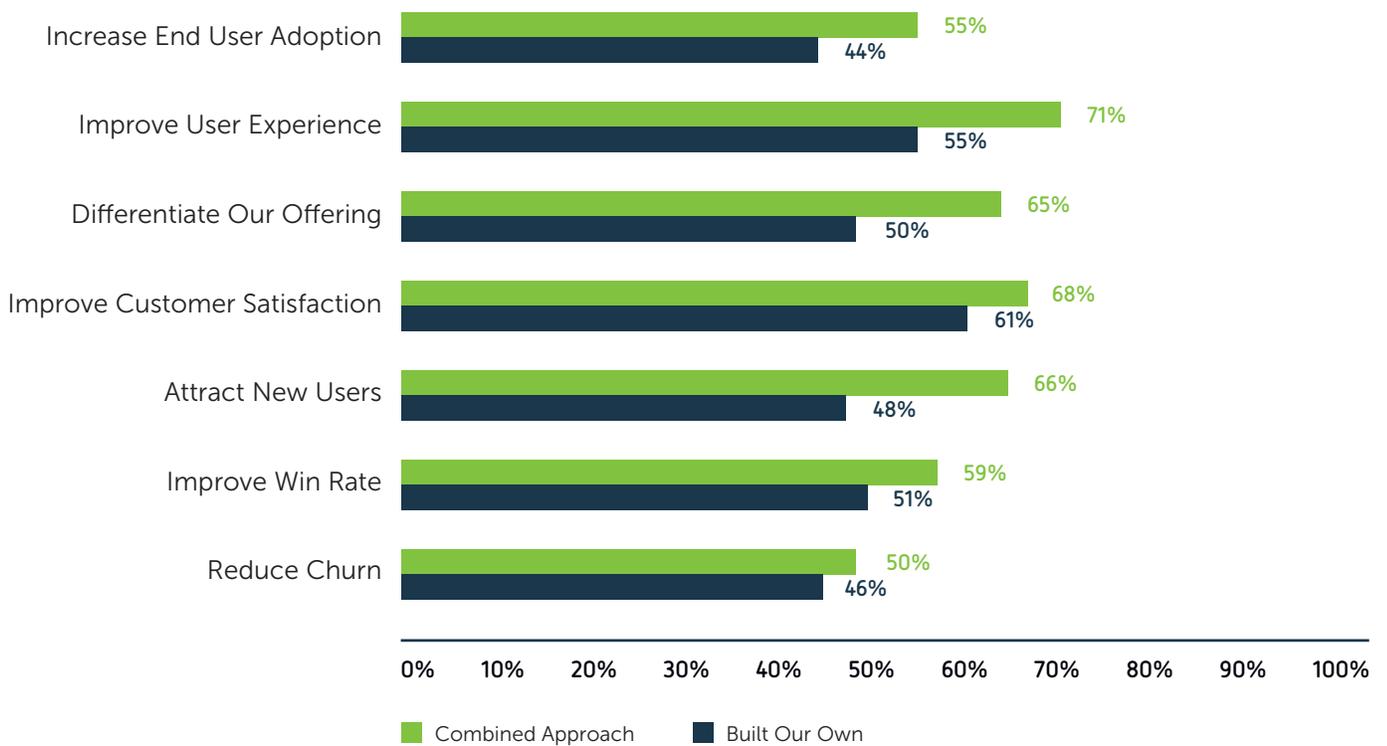
Combined approaches have more aggressive roadmaps: Of those companies **not** supporting these features today, how many plan to add them in the next 12 months?



Homegrown solutions result in fewer business benefits

According to survey respondents, end users are less satisfied with homegrown analytics. And application teams that build analytics on their own using custom code and components see worse results in terms of user experience, differentiation from the competition, and attracting new users.

“I strongly agree embedded analytics helps me...”



Successful embedded analytics requires a level of sophistication that companies choosing to build on their own simply cannot offer. Despite offering a lot of freedom, build approaches make it impossible to maintain and scale analytics over time. Customers will inevitably ask for more functionality, flexibility, and insights. If your analytics solution is built and maintained entirely in house, those requests are going to distract your development team from focusing on the core application.

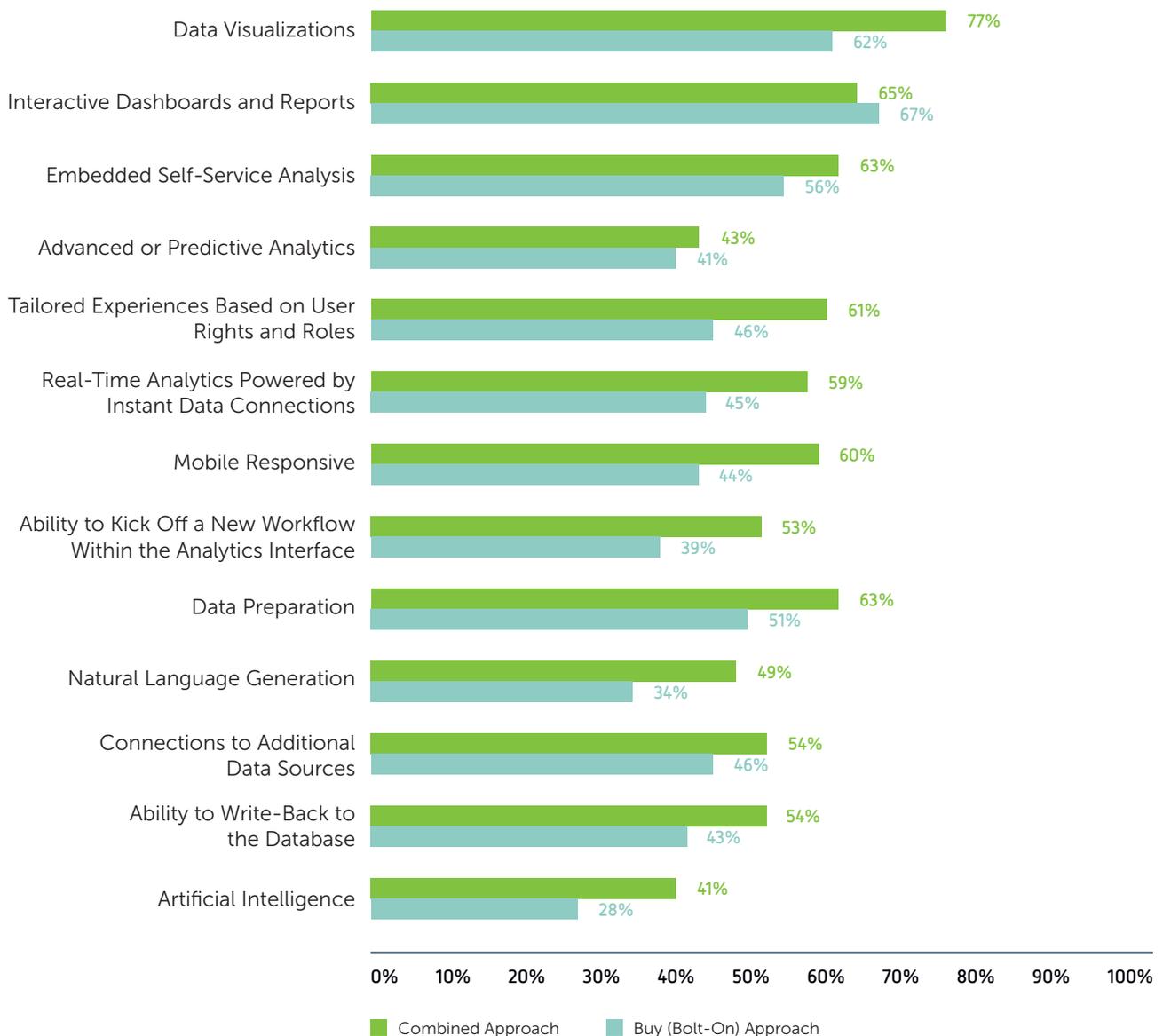
On the other hand, using an analytics development platform means application teams need fewer resources for ongoing improvements. After an application launches, they can go back to focusing on core application development. This supports sustainable innovation for years to come, as the platform delivers the latest capabilities and empowers developers to customize the solution for unique requirements.

When you can't build, what's the solution?

This year's survey proves building analytics on your own is no longer a realistic option for long-term success. In that case, application teams must buy a solution. But they still have two choices: Either embed a bolt-on data discovery tool or take a combined approach and leverage an analytics development platform.

Buying a bolt-on solution may seem like the perfect way to quickly update analytics, especially if you've fallen behind the market. However, this year's survey shows when companies buy bolt-on analytics solutions, they're less likely to offer robust capabilities across nearly every category.

Combined approaches lead to more robust functionality than bolt-on



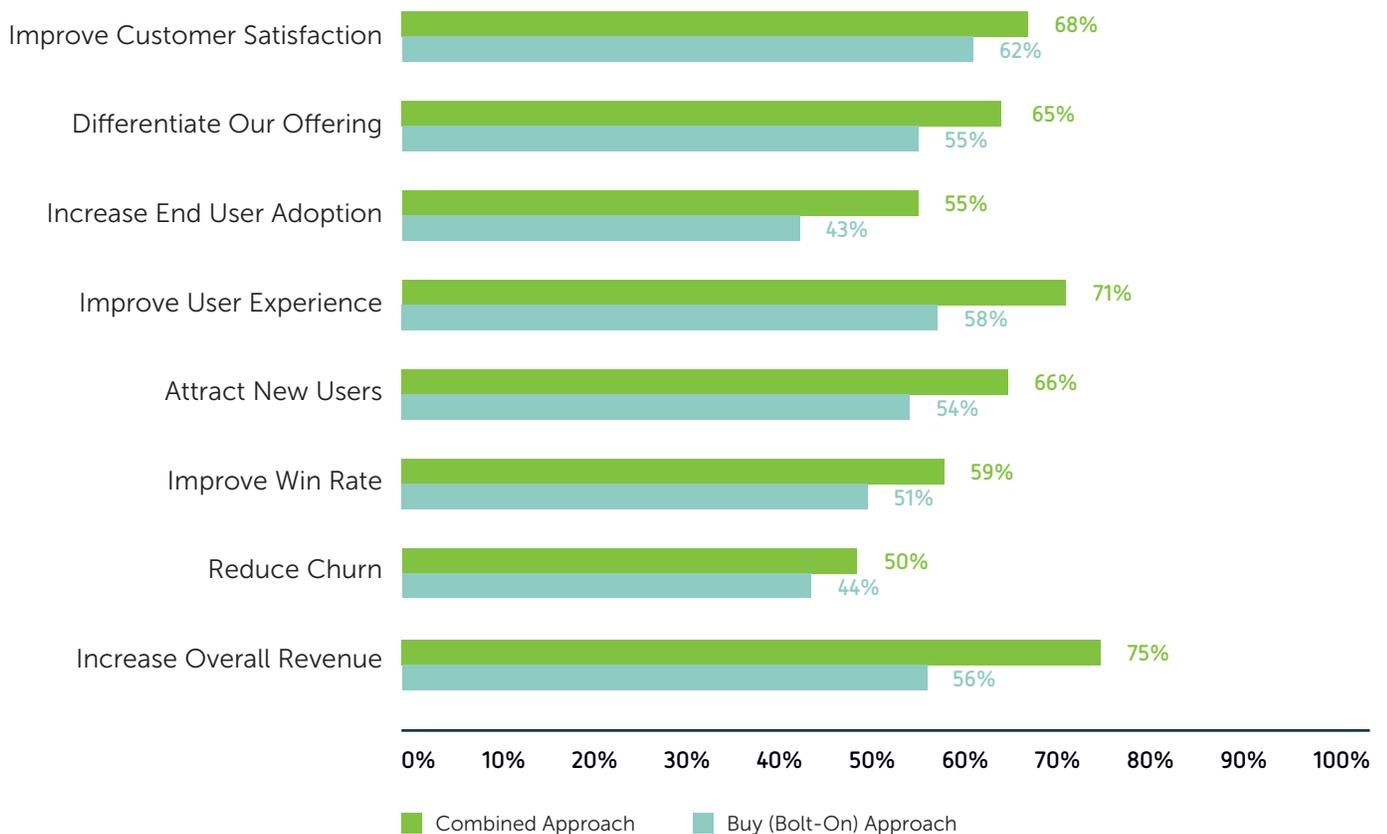
Teams that take a combined approach offer more capabilities—including advanced features such as AI—versus those that use a bolt-on solution.

Bolt-on solutions see fewer business benefits and inferior user experiences

The combined approach surpasses buying bolt-on products in terms of functionality. But how does that impact users and the overall business?

Compared to buying a bolt-on solution, a combined approach supports a more differentiated product, improves win rates, reduces customer churn, and boosts overall revenue. It also positively impacts the end users, resulting in better user adoption, user satisfaction, and user experiences.

“I strongly agree that embedded analytics helps our company...”



A particularly large gap exists when it comes to increasing overall revenue. Application teams that took a combined approach when embedding analytics were 19 percentage points more likely to increase revenue than those that bought a bolt-on solution.

Companies with the most successful applications have one thing in common: They leverage an analytics development platform to quickly deliver the most robust capabilities to the market.

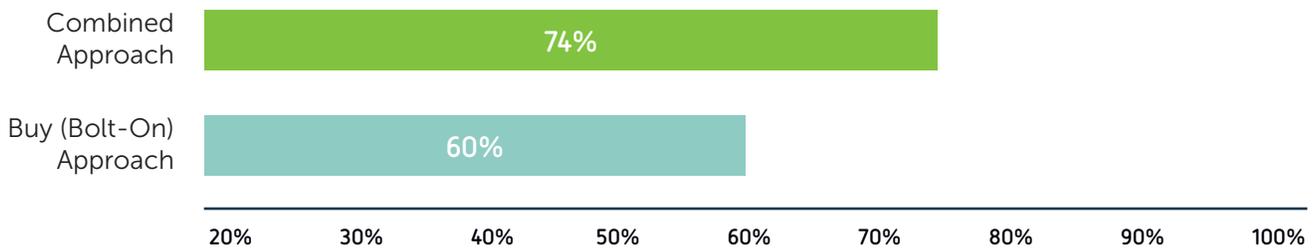
Bolt-on solutions create an unintended price cap

Overall, 74 percent of commercial applications taking a combined approach are able to charge higher for their analytics. This is significantly more than the 60 percent of commercial companies that bought a solution and are able to charge more.

Why does a combined approach enable companies to charge more? Because, as we saw earlier, buying a bolt-on solution tends to support only limited capabilities and focus on commoditized features such as standard interactive dashboards and data visualizations.

Application teams that took a combined approach when embedding analytics were 19 percentage points more likely to increase revenue than those that use a bolt-on solution.

Commercial applications that charge more for embedded analytics



This has an unintended consequence. When an application offers fewer capabilities and is less differentiated than others in the market, it's nearly impossible for that company to charge more. It also opens up an opportunity for competitors to capitalize on the gap. This causes the application team to set a low price for their analytics, and establishes an artificial price ceiling with their customers. Even if they eventually replace

their bolt-on solution with something more robust, their customers will resist paying a dramatically higher price because they've already established a ceiling.

Over the long term, the choice between buying a bolt-on solution and taking a combined (buy and build) approach can significantly impact the business. The time spent implementing a bolt-on solution—even if it's only meant to be a short-term bridge—then ripping and replacing it when it fails to support innovation, puts an application woefully behind the market and makes it incredibly difficult to remain viable.



CONCLUSION

THREE STEPS TO WINNING WITH ANALYTICS

As this year's State of Embedded Analytics survey proves, application teams leveraging an analytics development platform are the most successful. They see higher application adoption and more competitive differentiation than companies that buy a bolt-on solution or build something themselves. It's telling that nearly every application now offers embedded analytics, and more than half of an application's value is tied directly to analytics.

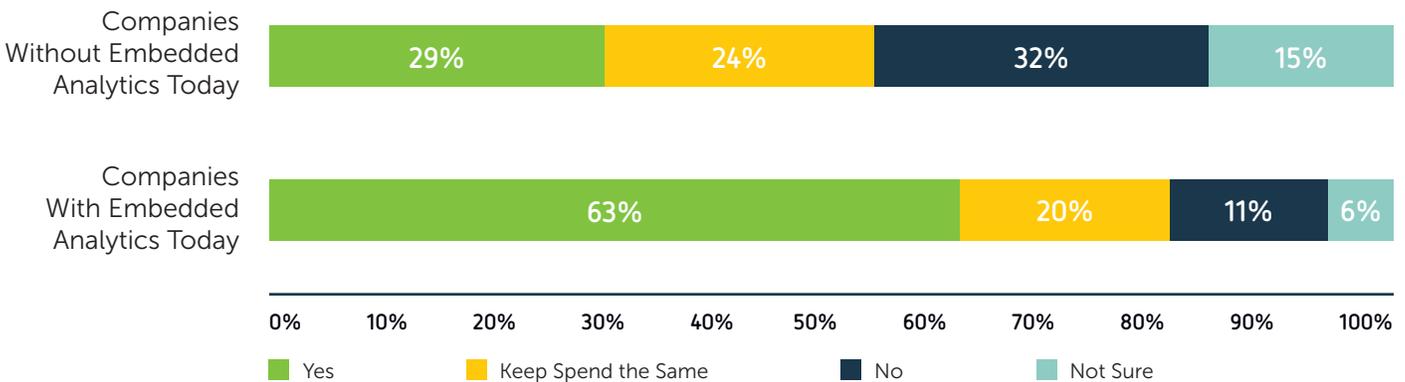
How can you get there? Take these steps to jump-start your analytics initiatives:

Step 1: Invest in Embedded

The value is clear. More than 80 percent of survey respondents that have already embedded analytics say they will continue to invest in the coming year. For companies that have not yet embedded analytics, nearly 30 percent plan to increase their investments in the next year.

Companies that do not invest in embedded analytics aren't doing themselves any favors. Continued investment is key in order to beat the competition, enhance offerings with the latest features, and keep up with shifting market standards.

Do you plan to increase investment in embedded analytics in the next 12 months?



Step 2: Set Realistic Priorities

Successful application teams realize every embedded analytics project has to start somewhere. Providing minimum viable analytics to customers is necessary before offering more differentiated experiences. In fact, nearly 90 percent of survey respondents that do not currently offer basic features like interactive dashboards and reports say they plan to add them in the next 12 months.

Don't be afraid to start with the basics. Just be careful not to stop there. By setting realistic priorities, you can gradually layer in more sophisticated analytics features that will drive long-term value and adoption. In the next year, expect sophisticated capabilities such as predictive and real-time analytics to become more prevalent.

Step 3: Use an Analytics Development Platform

As we concluded in Part 3 of this report, companies that either build their own analytics or buy a bolt-on solution find these are simply not sustainable ways to provide useful applications now or in the future. Both methods fail to support customization or long-term innovation.

Mission-critical applications—those essential to running a business—need more than minimum viable analytics. By using an analytics development platform, you can:

- Offer the widest range of robust features and capabilities
- Support the most differentiated user experience
- Dramatically increase user adoption
- Boost revenue

The bottom line: Solutions from build or buy approaches are already surpassed by a combined approach today—and the gap will continue to widen in the next year.

Don't lose focus on your core application development. Leverage third-party analytics solutions that will help you embed the capabilities that are not core to your value.



ABOUT LOGI ANALYTICS

Logi Analytics aims to solve a fundamental, persistent problem: Most people still don't have the information they need to make better business decisions. Why? Because standalone analytics tools mean switching between one application to another—which wastes time. The best way to deliver information to people is in context of the applications where they already spend their time. Logi Analytics is focused on helping organizations build analytic applications so their users can make decisions and take action immediately.

More than 1,800 customers worldwide have relied on Logi. The company is headquartered in McLean, Virginia. Logi Analytics is a privately held, venture-backed firm. For more information, visit LogiAnalytics.com.

APPENDIX

SURVEY METHODOLOGY

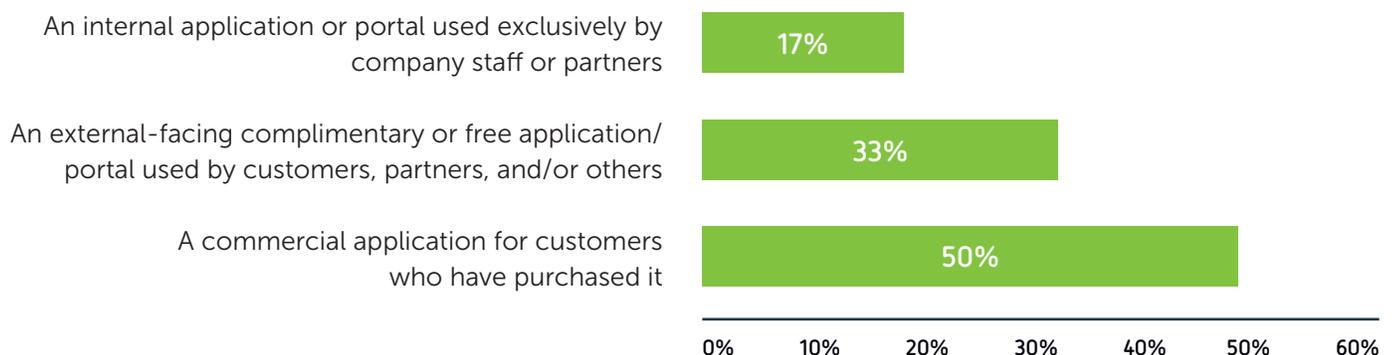
Logi Analytics fielded our 2018 State of Embedded Analytics Survey in November/December 2017 through an online survey. We received responses from 500+ business and technology professionals.

Survey respondents included people in product management, product development, software engineering, IT, and executives at companies of all different sizes.

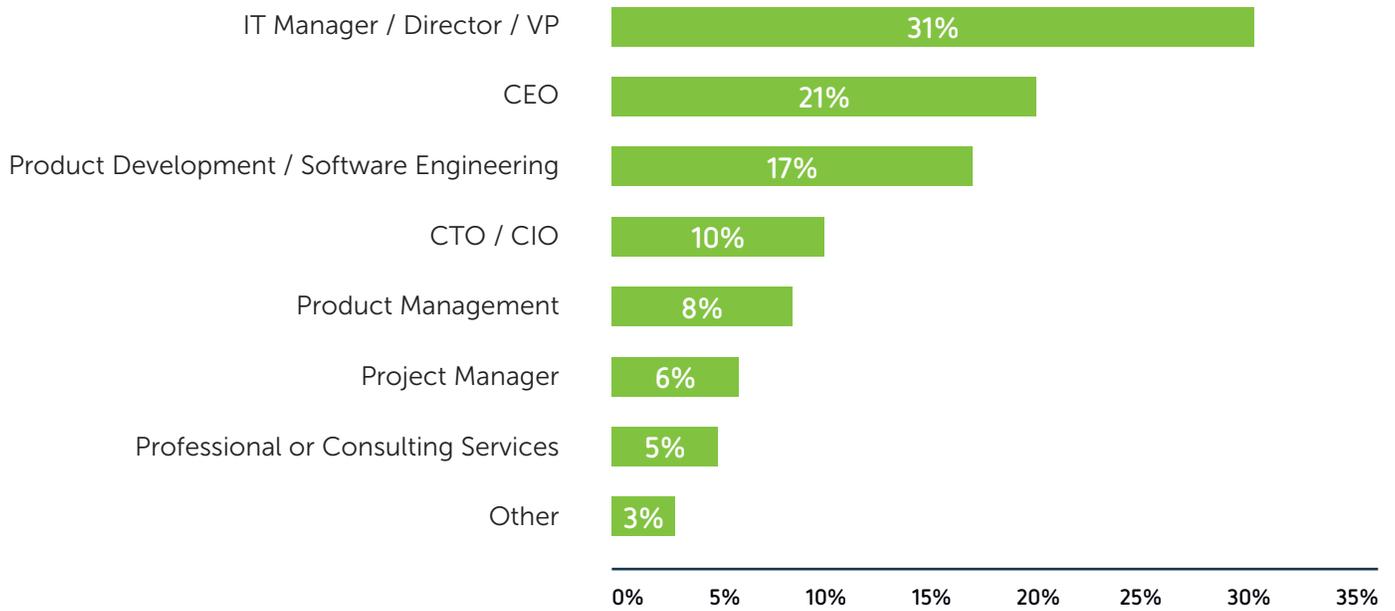
Seventy-three percent of respondents were from North America, and 26 percent were from the UK. Less than seven percent of respondents identified themselves as customers of Logi Analytics.

To request further information about the design or methodology of this survey-based study, please contact us at info@LogiAnalytics.com.

Which best describes the application you spend most of your time on?



Your job role



Number of employees

