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Forrester Opportunity Snapshot: A Custom Study Commissioned By SAP | March 2019

Optimize Business Intelligence Efforts With Embedded, Application-Driven Analytics

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Optimize Business Intelligence Efforts With Embedded, Application-Driven Analytics

Data scientists are rapidly recognizing that the traditional way of deriving insights from analytics — asking a question and getting an answer from a standalone analytical application — has noticeable shortfalls. An embedded, application-driven approach to analytics (i.e., embedding analytics into all business applications and processes) can provide companies with more contextual and actionable insights by supplementing traditional approaches and architectures.

In January 2019, SAP commissioned Forrester Consulting to evaluate the demand among business analytics teams for leveraging embedded analytics to discover, procure, and provision business intelligence (BI) data more effectively. In conducting a survey of 219 enterprise IT and analytics leaders, we found that embedding analytics within relevant transactional applications and business processes makes analytics contextual, actionable, and pervasive, thus better supporting business outcomes.

Company size

- 500 to 999: **17%**
- 1,000 to 4,999: **46%**
- 5,000 to 19,000: **26%**
- 20,000 or more: **11%**

Job level

- C-level: **42%**
- Vice President: **18%**
- Director: **40%**

Job position

- IT: **58%**
- Analytics/data science/business intelligence: **42%**

Region

- US: **30%**
- France: **18%**
- Germany: **18%**
- China: **23%**
- Japan: **11%**

Note: Percentages may not total 100 because of rounding.

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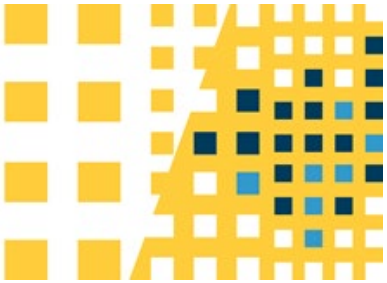
The Journey To Becoming Insights Driven Requires Improved BI Capabilities

IT and business intelligence teams are under pressure to deliver robust, data-driven insights that affect tangible business outcomes. Nearly one-third of respondents surveyed reported that increasing agility to enable faster decision making and increasing business innovation were their top objectives with BI investments, followed by improving customer experience and making better informed decisions in general.

32% of respondents cited increased agility to enable faster decision making as a top desired outcome of current analytics and BI efforts.



"What are the top three desired outcomes of your company's current analytics and business intelligence (BI) efforts?"

(Rank top three)

Base: 219 directors at enterprises in the US, EMEA, and APAC in IT, analytics, data science, and enterprise architecture familiar with their enterprises' analytics strategies
Source: A commissioned study conducted by Forrester Consulting on behalf of SAP, February 2019

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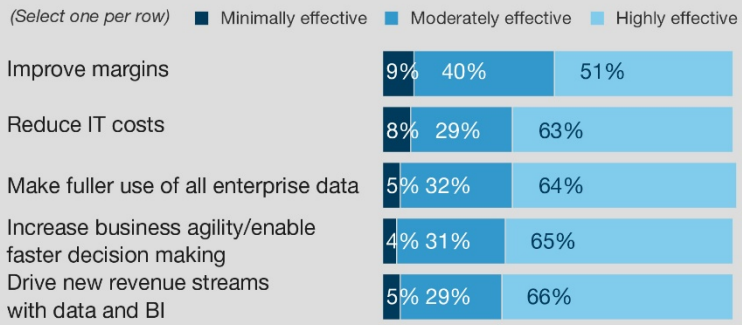
Companies Struggle To Use Their Current Analytics Capabilities To Their Fullest Potential

Even with focused intentions, firms struggle to optimize the analytics efforts they've invested in. Our survey validates this; roughly one-third of respondents surveyed stated that their companies aren't utilizing their analytics resources effectively. Many respondents reiterated that their organizations' current BI efforts are falling short of their stated goals, such as improving margins or reducing IT costs. A part of this struggle can be attributed to siloed, disparate analytics implementations. Nearly two-thirds of analytics efforts are limited in scope and function and are driven only by specific functions, teams, or regions, thus minimizing their true potential to be contextual and pervasive across the enterprise.

"How effective are your company's current analytics and business intelligence (BI) practices at achieving your desired business outcomes?"



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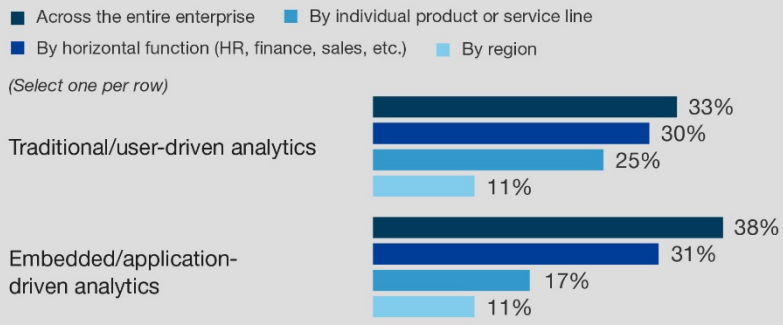
"How are analytics typically rolled out in your company?"



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Source: A commissioned study conducted by Forrester Consulting on behalf of SAP, February 2019

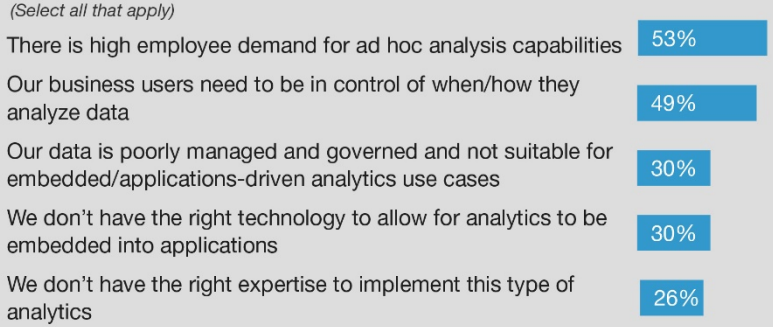
Embedded Analytics Can Supplement, Not Replace, User-Driven BI

To deploy embedded analytics successfully, companies must first reassess different analytics use cases and balance business needs. Over 50% of surveyed respondents claimed that their companies can't fully switch to embedded analytics because they still use ad hoc analysis for their data collection. Another issue is how the overall business dictates analytics investments: Many respondents claimed that business users need to be in control of how and when companies analyze data.

While most modern leading ERP, CRM, and other transactional and operational applications already come with embedded analytics, there's room for improvement. Only 26% of survey respondents reported a high level of satisfaction with embedded analytics while 16% reported minimal or no level of satisfaction.

"What is currently preventing your company from using more embedded/application-driven analytics functions, or has in the past?"

(Select all that apply)



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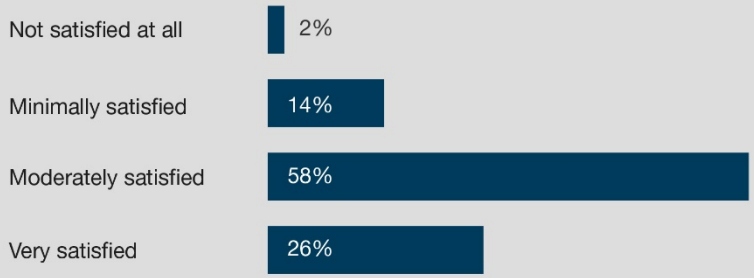
"How satisfied are you with the embedded analytics capabilities provided by your company's current ERP/CRM providers?"



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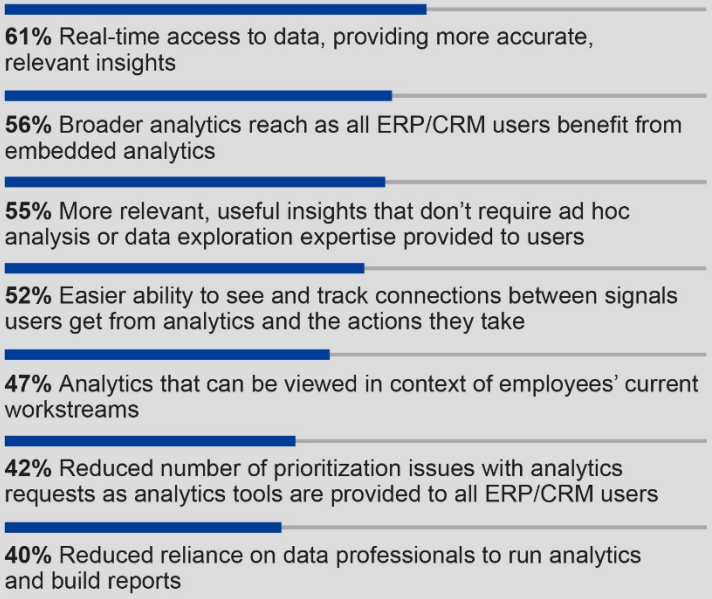
Using Embedded Analytics To Improve Overall BI Effectiveness

With a high demand to convert BI efforts into tangible business outcomes and actionable insights, companies are embracing a new option to capture analytics: an embedded, application-driven approach. On average, respondents estimated that 46% of current BI efforts are executed as embedded/application-driven analytics (much of that is included as part of ERP and CRM solution suites). Businesses are already reaping the benefits of this embedded approach to analytics. Over 60% of respondents noted that real- time access to data has improved since implementing an embedded analytics approach. Additionally, insights have become more relevant and no longer require ad hoc analysis or data exploration expertise to uncover. Importantly, more than half of respondents noted that an embedded analytics approach has allowed them to more easily track connections between the signals users get from analytics and the actions they take.

Over 60% of respondents noted that real-time access to data has improved since implementing an embedded analytics approach.

"What are some of the benefits your company hopes to realize, or has realized, through greater use of embedded/application-driven analytics?"

(Select all that apply)



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Benefits Of Embedded Analytics Extend Across The Enterprise

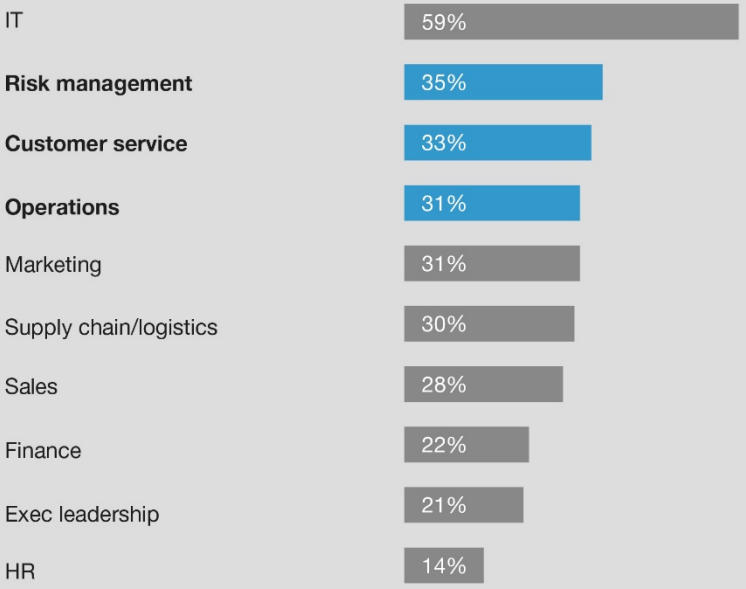
Embedded analytics place insights directly into the daily workflows of the users, thus allowing insights to more directly affect more parts of the organization. Survey results indicated that every department can benefit from the improved insights created from embedded analytics as embedded, application-driven analytics drive positive outcomes for both front- and back-office functions — starting with IT and expanding to marketing, customer service, and even HR functions.

While HR ranked at the bottom of the list of those named a top-three function where embedded analytics could be beneficial, it highlights an opportunity for companies to expand the use of embedded analytics so that all business functions can experience the same benefits.

Every department can benefit from the improved insights created from embedded analytics.

"For which business functions would you consider embedded/ application-driven analytics to be most beneficial?"

(Rank top three)



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Deploy BI As Part Of Your Organization's Journey To Become Insights Driven

The rewards of implementing embedded analytics capabilities aren't limited to just more pervasive, contextual, and relevant process improvements. The adoption of such BI practices grants explicit business benefits as well. Our survey found that by increasing capabilities around embedded analytics, companies can do more than just improve business agility and decision making (which are the top outcomes of current BI efforts). Areas of benefit with greater upside potential through increased use of embedded analytics include reducing IT cost and increasing revenue by driving new revenue streams with data and BI.

Embedded analytics are expected to drive more top-/bottom-line benefits than traditional analytics methods.

Top five desired outcomes of current, user-driven BI efforts

- Increase business agility
- Increase business innovation
- Improve data quality and consistency
- Improve customer experience (CX)
- Make better informed business decisions

Top desired outcomes by utilizing more application-driven analytics

- Increase business agility
- Make better informed business decisions
- Reduce IT costs
- Drive new revenue streams with data and BI
- Increase revenue

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Tap The Full Potential Of Embedded Analytics To Drive Improvements To Your Top and Bottom Lines

The value of BI to the business is clear, but the way in which companies approach BI can make all the difference in the value they gain. User-driven and application-driven (embedded) BI and analytics by themselves take enterprises only so far in terms of converting data into signals that drive business outcomes. Each approach deployed separately also has limitations, and it's a clear case of where the total is greater than the sum of its parts. Leveraging both user-driven and application-driven BI and analytics holistically across the entire enterprise has a clear correlation to more tangible business outcomes, such as improving top (increasing revenues) and bottom (reducing costs) lines.

While the survey found that most modern applications come with basic embedded analytical functions such as reports and dashboards, there's room for improvement. Businesses can upgrade embedded analytics to an advanced platform that includes not only descriptive, but predictive and prescriptive analytics. An additional benefit of deploying an advanced BI/analytics platform for embedded analytics is to leverage the same platform for user-driven BI, eliminating a need for third-party platforms and avoiding efforts and challenges associated with using multiple enterprise BI platforms.

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Methodology:
This Opportunity Snapshot was commissioned by SAP. To create this profile, Forrester surveyed 219 IT, BI, and data science directors at enterprises in the US, EMEA, and APAC who were responsible for their companies' analytics strategies. The custom survey was completed in February 2019.

Project Director:
Chris Taylor, Senior Market Impact Consultant

Contributing Research:
Forrester's application development and delivery research group

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