

# PREDICTIVE ANALYTICS: BREAKING THROUGH BARRIERS TO ADOPTION

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## Report Highlights

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**Predictive analytics  
adoption trends  
from 2012 to 2014**

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**A broad spectrum of  
users**

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**Faster decisions and  
more engaged users**

This report examines adoption trends around predictive analytics and explores adopters' strategies for achieving superior analytical performance.

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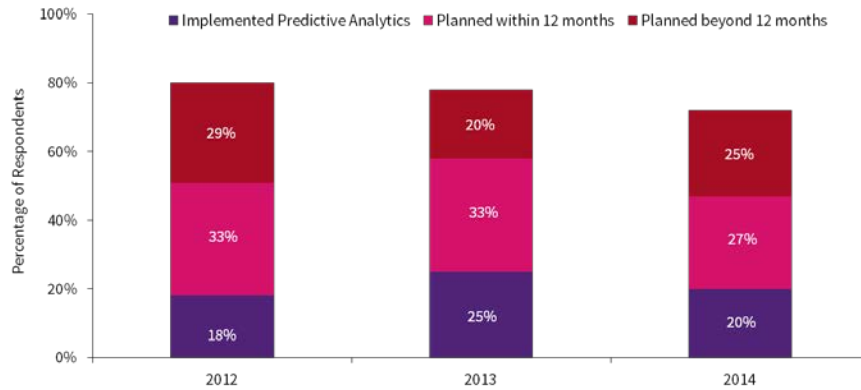
**Every business decision maker would like to know the future. However, the majority of organizations have not been willing to invest to make that capability a reality.**

Every business decision maker would like to know the future. However, the majority of organizations have not been willing to invest to make that capability a reality. Aberdeen's annual Business Analytics studies have collected data on the strategies, capabilities, and performance of analytical organizations in recent years, including organizations that have invested in predictive analytics. This report details the state of predictive analytics adoption and examines adopting organizations to reveal their best practices and successes.

### The State of Predictive Analytics Adoption

Aberdeen surveyed its Business Intelligence (BI) community to assess the accumulated traction of predictive analytics over the past three years (Figure 1). Companies shared if they were currently predictive analytics adopters or what their plans for the near future were. From 2012 to 2013, predictive analytics appeared to be gaining momentum; adoption within the community grew by 39%. This suggested that many of the 2012 respondents who had planned adoption had brought those plans to fruition in 2013. Additionally, the percentage of organizations planning to adopt within 12 months was stable year-over-year, while the percentage planning to adopt beyond 12 months dropped. This indicated that a sizable group of organizations were progressing with implementation plans and would be established adopters in 2014.

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**Figure 1: Predictive Analytics Adoption**

2012 n=520, 2013 n=309, 2014 n=681  
 Source: Aberdeen Group, December 2014

However, the 2014 data set suggests that the rising trend of predictive analytics adoption has not continued. One in five organizations in Aberdeen's BI community currently has predictive analytics implemented. What is holding back more widespread adoption? Technology evangelists can struggle to educate their colleagues on the business needs that can be addressed with predictive intelligence. Some organizations are averse to change and leave analytical potential on the table. Many budget holders feel uncertain of the required skill sets and experience needed to support predictive analytics. Adopting organizations find a way to break through such barriers that hold up investment in predictive analytics.

### Standout Traits of Adopters

What can adopters teach us about the road to predictive intelligence? Aberdeen examined several organizational traits around analytics that make predictive analytics more viable and ultimately successful (Figure 2). Seventy-nine percent (79%) of predictive analytics adopters have an executive-level champion for analytics. Only 48% of non-adopters have such a champion.

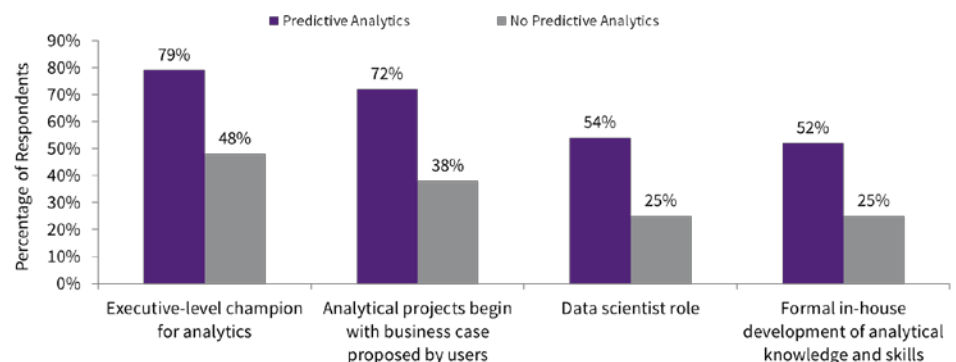
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**Users who can demonstrate a clear path to ROI will find more analytical tools in their hands.**

Impactful technology investments are driven by enlightened individuals with significant influence over budget and other high-level decision makers. Executives who believe in the potential of predictive analytics will bring their political capital to bear on adoption initiatives.

While executive champions are key, users also have a role to play in the adoption process. The majority of adopters launch analytical projects based on business cases proposed by users. These cases come from all lines of business and all levels of the organization. Those who want predictive capabilities should demonstrate how investment in more advanced analytics will improve their job performance. They can make their case even stronger by showcasing potential users outside of their immediate job role. Such a proactive approach will rally executive sponsors to the cause. Users who can demonstrate a clear path to return on investment (ROI) will find more analytical tools in their hands.

**Figure 2: Contributors to Adoption**



n=131

Source: Aberdeen Group, September 2014

Organizations with a data scientist know they have somebody who can tackle the challenges of managing disparate data sources and building complex models. While having a data

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scientist benefits the implementation and long-term impact of predictive analytics, the role is not a necessity for adoption. Nearly half of adopters (46%) do not have a data scientist. Strong solutions bridge the gap between data science and data analysis to deliver value from predictive analytics without a dedicated support role. Individuals considering a predictive analytics investment should detach themselves from the idea that the technology is only valuable for statistical experts. Successful predictive analytics are accessible for all users. Data scientists should be viewed as valuable assets to complement users and aid in the proliferation of predictive tools throughout the organization.

Finally, predictive analytics adopters are over twice as likely as non-adopters to have formal in-house development of analytical knowledge and skills. Non-adopters may shy away from predictive analytics because they don't believe their user base has the skill level to fully leverage the technology. Predictive analytics can have a low learning curve when novice users are given the proper guidance and training. Buyers with this concern should seek out solutions that offer **ease-of-use** and **short ramp-up times**.

#### Promoting Pervasive Analytics

Adopters of predictive analytics bring the technology to a broad spectrum of users (Figure 3). Such advanced analytics is no longer the sole purview of data scientists and IT. Complex analysis is performed daily at all levels of the organization. Predictive models are operationalized across the enterprise and analytics become a key component of everyday processes. Aberdeen's examination of [the modern data analyst](#) highlights the shift of analytical power to users. Predictive analytics adopters are 54% more likely than non-adopters to have "strong" or "highly pervasive" analytics at the corporate

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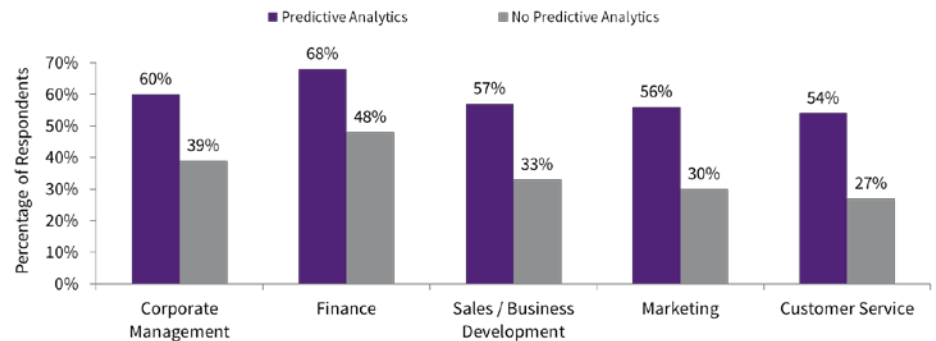
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➔ [Related Research:](#)  
 “The Modern Data Analyst:  
 Generating Insight at the Line of Business”

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management level. By feeding customer, product, or operational data sets into well-refined models, executives can evaluate new initiatives before irretrievably investing resources. Business leaders can also be ready with contingencies for a full range of possible outcomes.

**Figure 3: Departments with "Strong" or "Highly Pervasive" Analytical Adoption**



n=681

Source: Aberdeen Group, December 2014

→ Related Research:  
 “Speeding Up and Cashing In with Financial Analytics”

The strongest analytical cultures reside in finance, with 68% of predictive analytics adopters achieving pervasive analytics in that department. Financial analysts have, perhaps, more historical data than anyone to develop and hone accurate models. Financial decision makers can also build out different risk models, and weigh those predictions against the organization's appetite for risk at a given time. Aberdeen's report, [\*Speeding Up and Cashing In with Financial Analytics\*](#), details how financial analytics drive better resource utilization and healthier cash flow.

Adopters encourage pervasive analytical activity in customer-facing roles. Predictive analytics is especially valuable for sales users looking to identify the ripest accounts for cross-sell and up-sell opportunities. Sales and customer service

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representatives can recognize patterns and anticipate trends in customer behavior. For example, predictive analytics can alert these users if a customer shows warning signs of impending defection. Predictive analytics also help bring in net new customers, with 56% of marketing users reporting pervasive analytical adoption. Marketers can run predictive analytics on customer databases to generate more accurate customer segmentation. Marketing decision makers leverage predictive insights to design stronger campaigns, manage offers, and react to market shifts.

### Superior Analytical Performance

The value of predictive analytics goes far beyond fostering a stronger analytical culture throughout the organization. Predictive analytics adopters achieve superior performance in rapid analytical decision making and user engagement (Figure 4). Adopters obtained critical information within the decision window 80% of the time, compared to 64% of the time for non-adopters (see sidebar). Put another way, analytical decision makers at non-adopter organizations have to act based on instinct or incomplete information significantly more often. Predictive models offer key insights, but also inevitably generate new questions and additional data demands. Adopters more quickly understand the full scope of their data needs. Users can muster information and perform robust analysis in time to beat decision deadlines.

In addition to reducing decision latency, predictive analytics contribute to faster overall decision processes. Users of predictive analytics are 39% more likely to have improved their speed of decision making over the past year. Trusted algorithms give users confidence in what they are modeling, enabling them to quickly work through analysis and pull the trigger on a final call. Such models can also be automated for even faster results

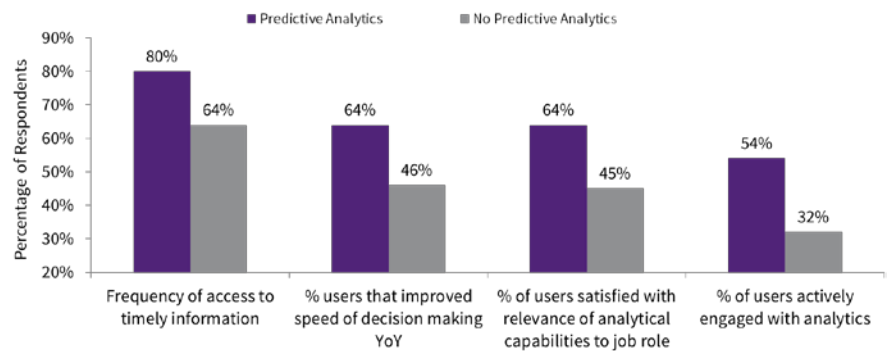
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Aberdeen defines the **decision window** as the period of time when information is valuable for a choice at hand.

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and leveraged to draw intelligence from new data sets. Mature predictive analytics adopters have solutions that help users choose the best model based on validation from past performance.

**Figure 4: Decision Speed and User Engagement**



n=681

Source: Aberdeen Group, December 2014

**In addition to accelerating decision processes, predictive analytics foster happier and more engaged business users.**

In addition to accelerating decision processes, predictive analytics foster happier and more engaged business users. Predictive analytics adopters have 42% more users per capita who are satisfied with the relevance of analytical capabilities to their job role. As shown in the wide distribution of pervasive predictive analytics deployments, complex questions can arise anywhere. Analytics achieve a widespread presence in organizations when users at all levels have access to relevant capabilities that help them perform their jobs exceptionally. Analytics on historical data will always be valuable, but users are happier when given the ability to glimpse the future.

The relevance of predictive capabilities for all manner of users is why predictive analytics adopters have 69% more actively engaged users per capita than non-adopters. These users are accessing analytical tools on a weekly or more frequent basis. Users who consistently obtain the predictive insights that help



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them perform and impress their superiors will frequently come back to the analytical well. Predictive analytics tools should offer users an intuitive experience that is approachable and never hinders their analytical efforts. Superior ease-of-use will accelerate analytical processes and promote more active users. These users will produce rich visualizations and tell compelling analytical stories with their predictive results.

### Key Takeaways

Everybody wants a crystal ball, but that crystal ball has to work and justify its cost. Organizations equipped with predictive insights provide a guide for successful adoption and showcase the desirable impact of deploying advanced analytics.

Technology decision makers weighing a predictive analytics investment or looking to better leverage their current predictive toolset should consider the following:

➔ **Predictive analytics faces barriers to adoption.**

Adoption in the Aberdeen BI community currently sits at 20%. Organizations interested in predictive intelligence must overcome concerns around cost justification, business needs, and support resources. Predictive analytics will regain the momentum it demonstrated in recent years as interest in the market is supported by success stories and demonstrated ROI.

➔ **Adopters have left a trail of breadcrumbs.**

Organizations with predictive analytics present a set of traits that offer a guide to overcome hurdles to adoption. Adopters have executive champions for analytics and analytical projects originate with business cases from users. They are also significantly more likely to support users with training.

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→ **Predictive analytics reach a broad spectrum of users.**

Organizations with predictive analytics achieve more pervasive analytics at all levels. Adopters reported stronger analytical cultures in corporate management, finance, sales, marketing, and customer service. With minimal statistical expertise, all users can leverage predictive intelligence to improve their job performance.

→ **Predictive analytics contribute to faster decisions and more engaged users.**

Users of predictive analytics reported accelerated decision processes and more consistently obtain analytical insight when they need it. These users clearly appreciate predictive insight, as they were more actively engaged with tools and more satisfied with the relevance of their analytical capabilities.

The future of predictive analytics still looks bright, even if many analytical organizations still need to acquire the tools to see it.

For more information on this or other research topics, please visit [www.aberdeen.com](http://www.aberdeen.com).

## Related Research

[\*Predictive Analytics: Exploiting the Past for Future Reward\*](#); December 2014

[\*The State of Data Speed: Fast Data Trumps Big Data\*](#); December 2014

[\*Predictive Analytics in Financial Services: See the Future, Make it Brighter\*](#); August 2014

[\*Get Smart: Advanced Analytics Applied to Big Data\*](#); August 2014

[\*The Modern Data Analyst: Generating Insight at the Line of Business\*](#); August 2014

[\*Predictive Analytics is Delivering Results, so What are BI Adopters Waiting For?\*](#); March 2014

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