Building AI-Driven Enterprises in a Disrupted Environment

How 104 Enterprise Chief Data and Analytics Officers are Spearheading Strategies, Systems and Cultures to Create Operational AI in the Age of COVID-19

FICO

Corinium

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Executive Summary

Building AI-Driven Enterprises in a Disrupted Environment reveals how data and analytics executives at large enterprises are working to operationalize AI in the age of COVID-19.

Through survey research and in-depth executive interviews, it explores how these executives are developing and deploying AI capabilities within their organizations and using them to differentiate their businesses in the face of the pandemic.

What's more, it highlights how AI is streamlining business processes and reducing waste and reveals the central role 'responsible AI' will play in shaping the technology's future as global markets begin their recoveries. ■

Key Findings

93%

say **ethical considerations** must be dealt with to **drive AI adoption** within their organizations

67%

don't monitor their models to ensure their continued accuracy and prevent model drift

65%

say **building a team with the right skills** is a large or medium barrier to AI adoption

63%

have started **scaling AI capabilities** within their organizations

57%

say **demand for AI products has risen** as a result of COVID-19

46%

say **scorecard-based predictive models** are still showing **real potential**

Methodology

This representative global survey of 104 CDOs (Chief Data Officers), CAOs (Chief Analytics Officers) and CDAOs (Chief Data and Analytics Officers) from organizations with at least USD $100 million in annual revenue was conducted in April and May 2020.

With expert commentary from five C-level data and analytics executives from across the globe, it provides a unique snapshot of the forces shaping the future of enterprise AI today. ■

Contributors

Jose A Murillo
CAO, Banorte

Nirali Patel
CDAO, AXA PPP Healthcare

Bart Pietruszka
CDO and Head of Analytics, HSBC

Dante Tellez
CDAO, Chubb

Scott Zoldi
CAO, FICO

The 'COVID-19 Effect' on Enterprise AI Adoption

KEY FINDING

As the pandemic continues to put a strain on many enterprises, demand for data, AI and digital tools is soaring

With COVID-19 continuing to disrupt in-person business transactions, business leaders have quickly woken up to the need to use technologies like AI to enhance customer experiences on digital channels.

When we asked more than 100 C-level executives who are 100% focused on data and analytics how they are responding to the pandemic, more than half said COVID-19 has had a positive effect on demand for AI products or tools. Similarly, 65% said demand for digital products and services has risen in their organizations because of COVID-19.

"The COVID-19 situation is a difficult one for a number of people who have lost their jobs or who are affected directly by the disease," says Bart Pietruszka, CDO and Head of Analytics at HSBC. "But from a more positive side, it has brought some good changes, with companies like Amazon flourishing. They have hired 175,000 additional people in the last few months."

He continues: "Our team has probably had an additional 20% increase in the information that we provide to the business to make sure that they're equipped with the right knowledge about what's happening."

These findings contrast starkly with COVID-19's impact on the wider business community. A recent survey of CEOs from global leadership community YPO shows that 51% of Chief Executives characterize the pandemic as a large or severe risk to their business, with 11% saying their businesses are at risk of collapse. ▶

In fact, with one in three of our survey respondents saying that COVID-19 has had a negative impact on the budget or headcount they can allocate to AI projects, AI leaders will need to be strategic about which projects they prioritize in the short-term. There is little space for hype-driven projects that aren't supported by strong business cases in today's marketplace.

"The question will be, what sort of analytics will thrive right now?" suggests Scott Zoldi, CAO at analytics company FICO. "I actually think we may see AI and ML adoption slow down a bit in certain areas, and people will select 'safer' technologies and focus on responsible AI in the very near-term, with respect to COVID-19."

Four Persistent Barriers to AI Adoption

The increased demand for data and analytics that COVID-19 is generating will help accelerate the work many data and analytics teams are doing to lay the foundations for AI.

For this to lead to a long-term increase in AI adoption, CDAOs must address a range of other blockers that can scupper AI projects.

"In regard to the whole industry, I think what is happening is very nascent," says Jose A Murillo, CAO at Mexican bank Banorte. "We're just starting to see the potential of what can be done." ▶

"At the end of the day, the biggest barrier is the human barrier, and that's something that people should be aware of"

Jose A Murillo
CAO, Banorte

'Building a team with the right skills', 'dealing with data and algorithmic ethics', 'integrating new technologies with legacy systems' and 'meeting regulatory or compliance requirements' are the four greatest barriers to AI adoption today. These were rated as 'large' or 'medium sized' barriers by 65%, 65%, 61% and 59% of survey respondents, respectively.

At the other end of the scale, longstanding challenges such as 'lack of C-Suite support', 'lack of board-level support' and 'trouble showing ROI' now seem to be on the decline. Just 6%, 12% and 22% of survey respondents rated these as 'high' barriers to AI adoption, respectively.

Given that our survey was conducted well after the COVID-19 pandemic began, it's safe to assume that the pandemic has not undone the great work analytics leaders have done to win support for AI projects in recent years.

"There are still challenges with access to data, availability of data, the cleanliness of data and data rights," Zoldi says. "But as businesses start getting to grips with these things, the next big hurdle is showing people why they should trust that the AIs produced will continue perform well enough to make good decisions."

"I think the challenges you face depend on what type of business you are," adds Nirali Patel, CDAO at insurance provider AXA PPP Healthcare. "If you're a start-up and your mentality has been around having the right technology and infrastructure in place, it's sustainability.

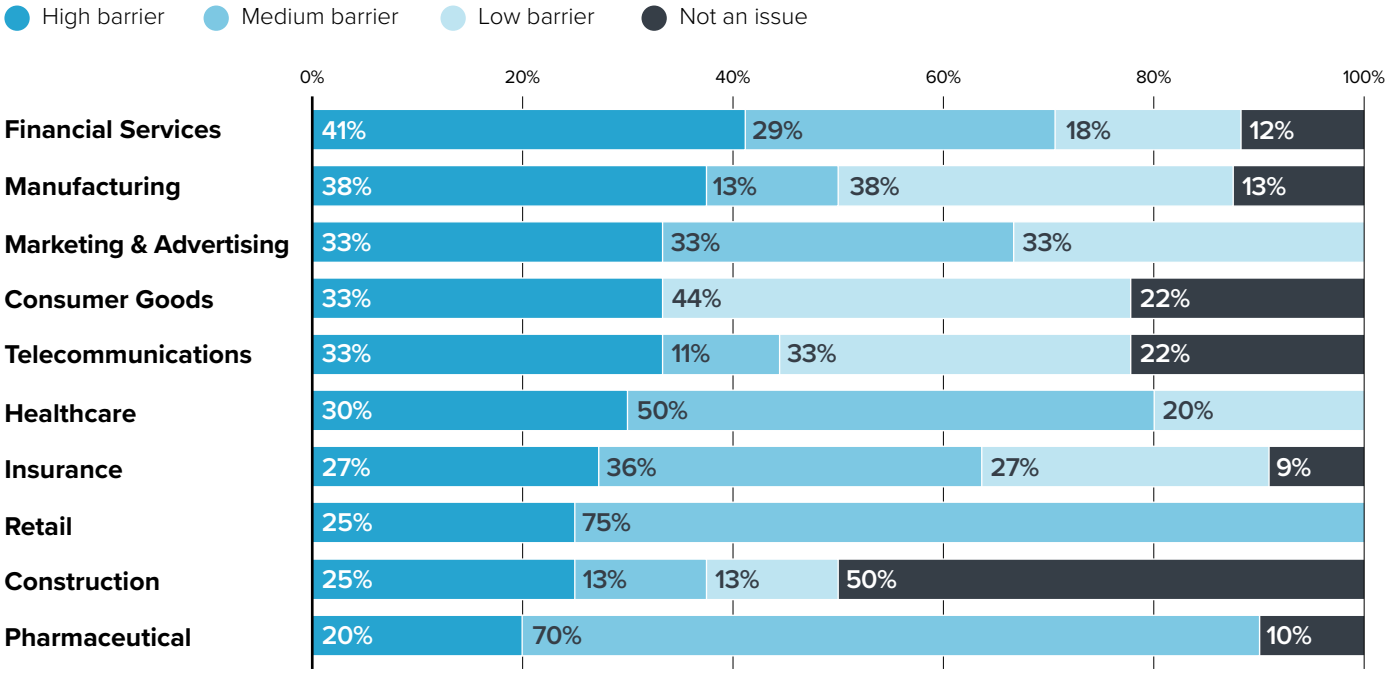
"But if you're not a start-up and you're a long-standing business, then the biggest problem I feel that you might see is around legacy estates and integration into operational systems."

AI Leaders Scared to Appear 'Behind the Curve'

Despite the wide range of AI challenges facing enterprises in today's unprecidented business climate, the data and analytics leaders we surveyed say that 57% of the AI projects they've identified a business need for are fully deployed in their organizations.

However, some of the executives we interviewed suggested that some respondents may have exaggerated the number of AI projects they have deployed to avoid seeming 'behind the curve'. ▶

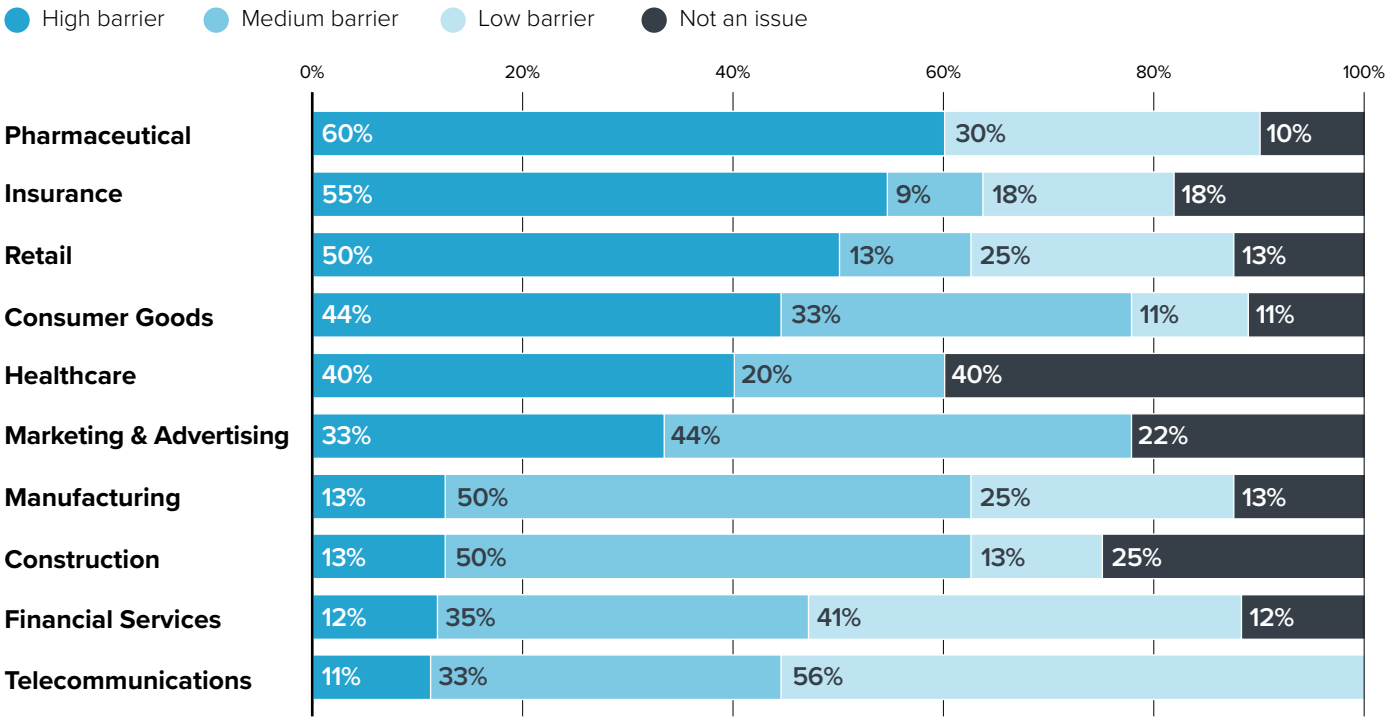
All Sectors Struggle to Build AI Teams with the Right Skills



*Figures may not add up to 100% due to rounding

Source: Corinium Intelligence, 2020

Legacy Systems are a Cross-Industry Barrier to AI Adoption



*Figures may not add up to 100% due to rounding

Source: Corinium Intelligence, 2020

"I would say it's 5-10% [of use cases that are fully deployed] for the time being," says Pietruszka. "The adoption of AI tools is still very limited. Parts of many industries are process-heavy and people-reliant, and are not able to detach themselves from the classical ways of doing things."

Given that just 25% of respondents say they have a fully unified, enterprise-standard approach to delivering AI projects in place, there could be something to this theory. But it's also possible that many organizations have yet to identify all the AI use cases they could benefit from.

Despite this, other analytics leaders are optimistic about the future. Murillo argues that the world's most AI-driven companies are already showing us the possibilities this technology can unlock.

"It's just a matter of time!" he says. "Firms that have AI in their foundational DNA are several steps ahead. The traditional firms that are trying to become more AI-enhanced are the ones that are having problems."

As the world adjusts to the 'new normal' that will emerge post-COVID-19, the business case for using AI to deliver superior customer experiences will only grow stronger.

The lasting effects of this pandemic could prove to be a key driver in helping AI leaders to advance their initiatives, double down on digital transformation and overcome the persistent barriers that have long stood in their way. ■

"Parts of many industries are process-heavy and people reliant, and are not able to detach themselves from the classical ways of doing things"

Bart Pietruszka
CDO and Head of Analytics, HSBC

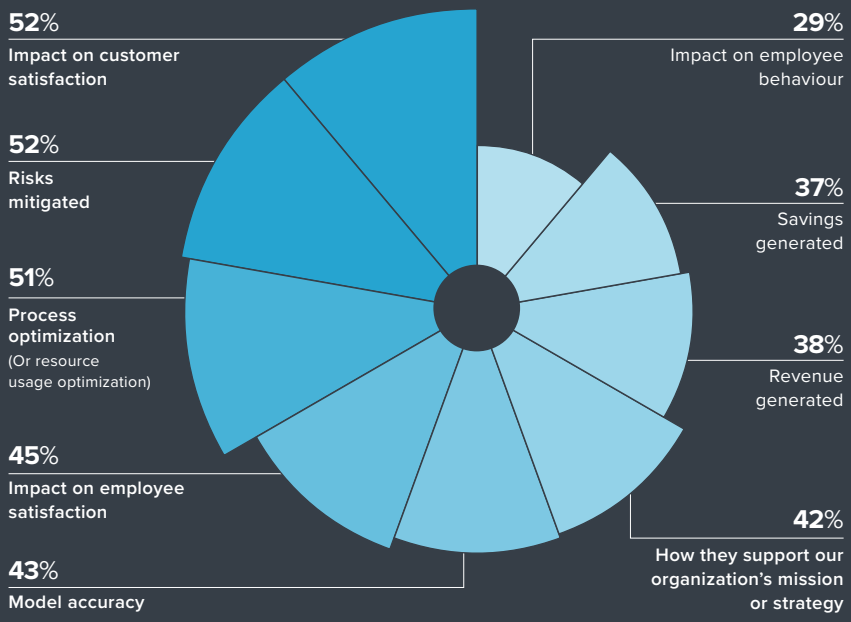
Communicating AI Successes is Vital in the Age of COVID-19

KEY FINDING

With the global pandemic putting pressure on analytics leaders to ensure AI projects deliver high ROI, showing the board clear results is essential for securing ongoing support for these projects

AI Leaders use a Range of Metrics to Convey the Value of AI

How do you communicate success in your AI initiatives to your executive team or board of directors?



CDOs, CAOs and CDAOs Have a Mixed Relationship with the Board

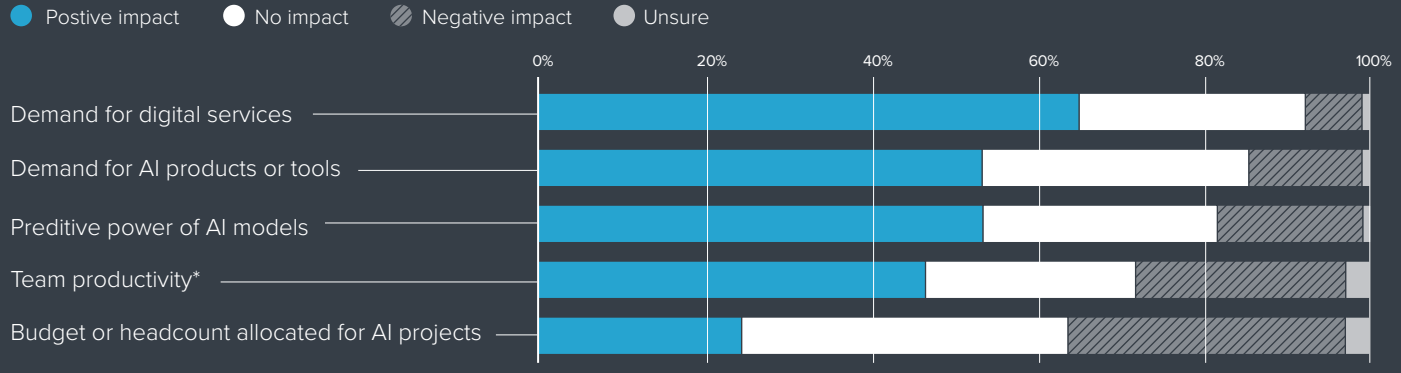
100%
believe the board at least **somewhat accepts the importance of AI**

55%
say **'insufficient funding'** is at least a medium sized barrier to AI adoption

51%
have an **open line of communication** with their board or directors

COVID-19 is Having a Clear Impact on Demand for AI

What impact has COVID-19 had on the following aspects of your organization's AI strategy?



*during the transition to remote working

Source: Corinium Intelligence, 2020

Enterprise AI is Entering its Adolescence

KEY FINDING

Even after years of excitement and enthusiasm, just one in four organizations with C-level analytics leaders have a fully unified, enterprise-standard approach to delivering AI projects

Despite the huge amount of attention AI technologies have received in recent years, we are still a long way from the sort of broad, human-level AI that was envisioned when the term was first coined in 1956.

"I think 'general AI' is still one or two generations ahead of us," says Bart Pietruszka, CDO and Head of Analytics at HSBC. "We have to be mindful of the fact that AI has been a widely discussed topic since the 20th century and it hasn't been [achieved] yet."

AIs that are more intelligent than humans may still be the stuff of science fiction. But our survey of 104 CDOs, CAOs and CDAOs shows just how far the discipline has come.

More than 99% of the executives we surveyed are interested in developing AI capabilities. Meanwhile, 87% have at least started developing their 'proof of concepts' and 69% have deployed AI capabilities in specific regions or business units. ▶

"We have to be mindful of the fact that AI has been a widely discussed topic since the 20th century and it hasn't been [achieved] yet"

Bart Pietruszka
CDO and Head of Analytics, HSBC

"There has to be a standard of responsible AI development for the enterprise, which should be sanctioned by the CAO, and there should be checks and balances to ensure that it's followed"

Scott Zoldi
CAO, FICO

What's more, 63% of these executives have started scaling AI within their organizations and 45% have established efficient processes for developing, testing and scaling AI capabilities.

"We say 'the future of AI', but we have it all around us every day," notes Nirali Patel, CDAO at AXA PPP Healthcare. "It's not something new. It's just something that's evolving and helping organizations and helping people live better lives."

In short, AI is entering its adolescence. Many enterprises have now succeeded in preparing the ground for AI to flourish and are applying the technology to drive real ROI. But with three in four respondents saying they still lack a unified, enterprise-standard approach to 'doing AI', true AI maturity is still a way off for most.

Enterprises are Laying the Foundations for Operational AI

While virtually all enterprise data and analytics executives are interested in AI, some are further down the path to AI maturity than others.

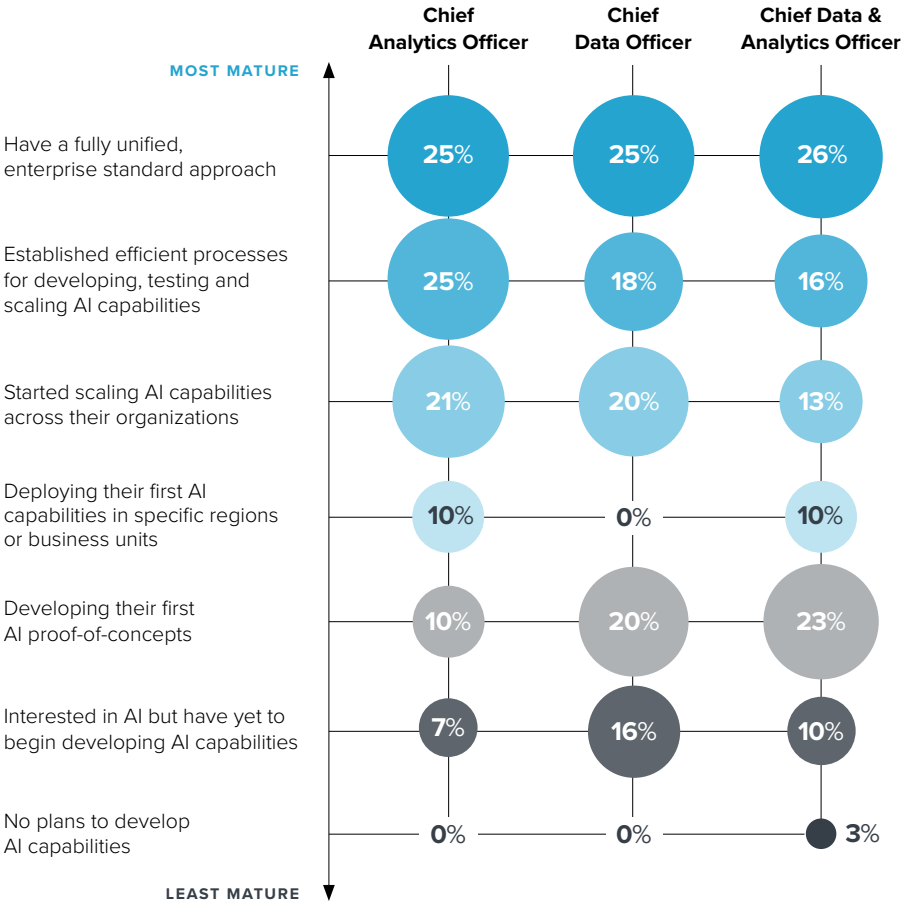
Our research shows that CAOs are the most likely to have started scaling AI capabilities in their organizations, compared to CDOs and CDAOs. A full 71% of CAOs have reached this stage of the AI journey, compared to 64% of CDOs and 55% of CDAOs.

"The CDOs I interact with often have more of an IT and architectural focus, with less of a focus on analytics," says FICO CAO Scott Zoldi. "But if you go to a CAO, they tend to be experts in AI and machine learning."

Similarly, different industries have different appetites for AI adoption. Financial services AI leaders are the most likely to have established a unified, enterprise-standard approach to AI, closely followed by those in retail, telecoms and consumer goods.

It will take time for the remaining 12% of AI leaders who are interested in AI but yet to start their AI journeys to put the right data foundations in place. Enterprises that launch into AI development without sound data governance, data management and data quality supporting processes in place often run into serious trouble. ▶

CAOs Lead the Way on AI Maturity



Source: Corinium Intelligence 2020

"The architecture to scale AI is complicated," explains Dante Tellez, CDAO at insurance giant Chubb. "If you want to scale AI, it must be embedded in your operations. So, if you're having problems with your transactional systems, it is hard to think about end-to-end AI models or algorithms for your operation."

At the same time, there is no one data architecture template that will work for every organization. Plus, AI leaders will naturally need to make different decisions based on whether they're prioritizing long-term scalability or driving value in the short-term.

But as more organizations succeed in putting the foundations they need to get started in place, a wide range of AI algorithms are showing potential in business contexts.

Deep learning, association rule learning, regression and clustering models are the most promising types of AI for use in business today. Respectively, 68%, 56%, 52% and 52% of our survey respondents said these are showing the greatest potential within their organizations.

Notably, 46% or respondents also indicated that scorecards still show big potential to deliver results,

and 52% said the same about regression models.

Some pundits view these methods as yesterday's news compared to the speculative new approaches on the other end of the spectrum. But they are still proven and cost-effective ways to create predictive models for mission critical use cases.

"If you want to scale AI, it must be embedded in your operations. So, if you're having problems with your transactional systems, it is hard to think about end-to-end AI models"

Dante Tellez
CDAO, Chubb

How to Ensure AI Teams Drive Value Efficiently

Another sign of the general immaturity of enterprise AI is the lack of consensus about the best way to structure an organization's AI teams.

Our research reveals that 85% of data-driven enterprises have a dedicated AI function. Where there are dedicated AI teams, 74% are either organized as one centralized AI team or with a single center of excellence coordinating decentralized teams. However, the other 26% have chosen to embed AI teams into specific business functions instead.

"Developing enterprise AI is hard," notes Zoldi. "There need to be standards to support responsible AI and those standards must be applied and governed equally across teams." ▶

"So, I have a view that it all needs to be centralized," he argues. "There has to be a standard for responsible AI development for the enterprise, which should be sanctioned by the CAO, and there should be checks and balances to ensure that it's followed."

Three quarters of the executives we surveyed say they have developed streamlined model development-to-production environments to ensure they're using AI efficiently. Meanwhile, 48% have established standardized processes to help them 'get it right first time'.

What's more, 45% have defined clear 'dotted line' reporting structures using an AI skills and resources matrix.

"I've seen some organizations take a start-up mentality to their digital and AI parts," adds Patel. "So, they accept that their historical or legacy business sits on one side of the fence. Then, they'll start a new thing that's AI-driven or AI-embedded and slowly wind one down and the other one up."

However, given that our respondents said 43% of the AI projects they have identified a need for are not yet fully deployed, some might rightly question how many AI teams have the right mix of processes and organizational structures in place at present.

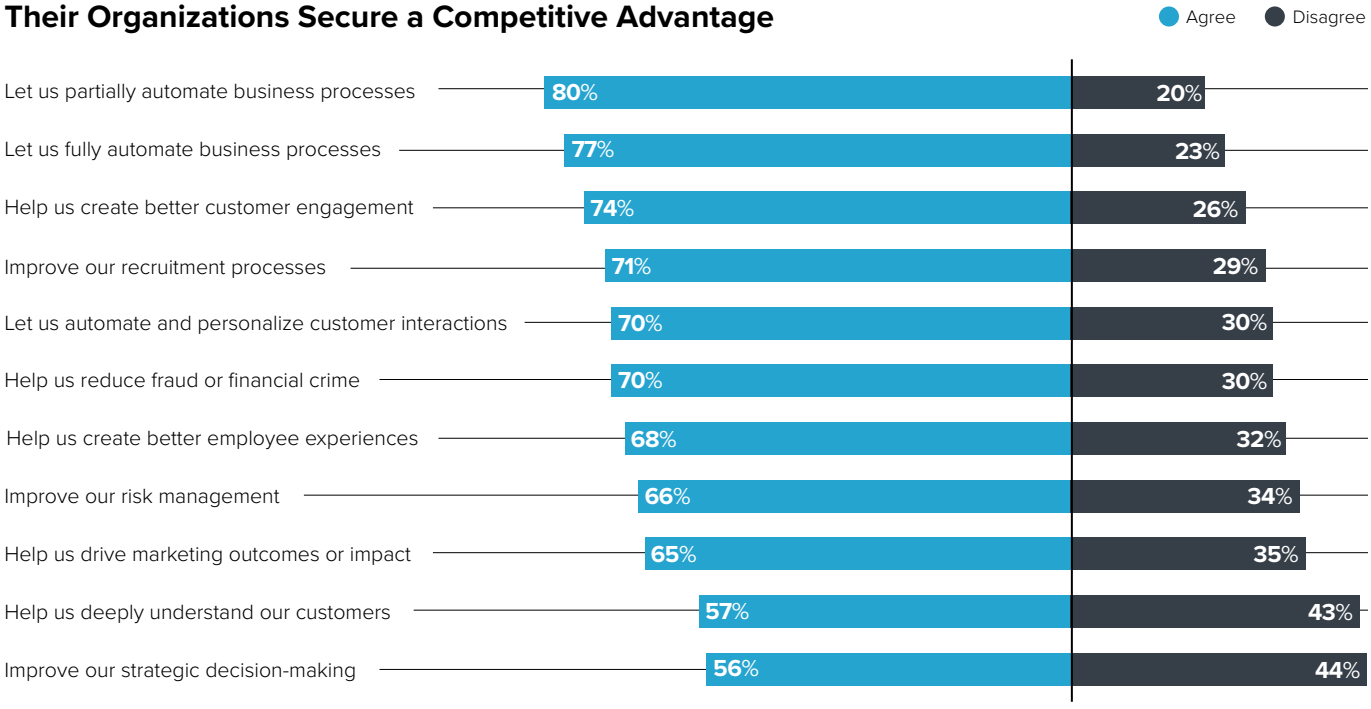
Today, companies like Facebook and Amazon offer a glimpse of what the future might have in store for AI-driven enterprises. These businesses represent pockets of excellence in a world where AI is still broadly going through its adolescence.

The findings of our research should help AI leaders see where there are opportunities to improve elements of their AI functions to accelerate their journeys towards AI maturity. ■

"There need to be standards to support responsible AI and those standards must be applied and governed equally across teams"

Scott Zoldi
CAO, FICO

How Data and Analytics Executives Believe AI will Help Their Organizations Secure a Competitive Advantage



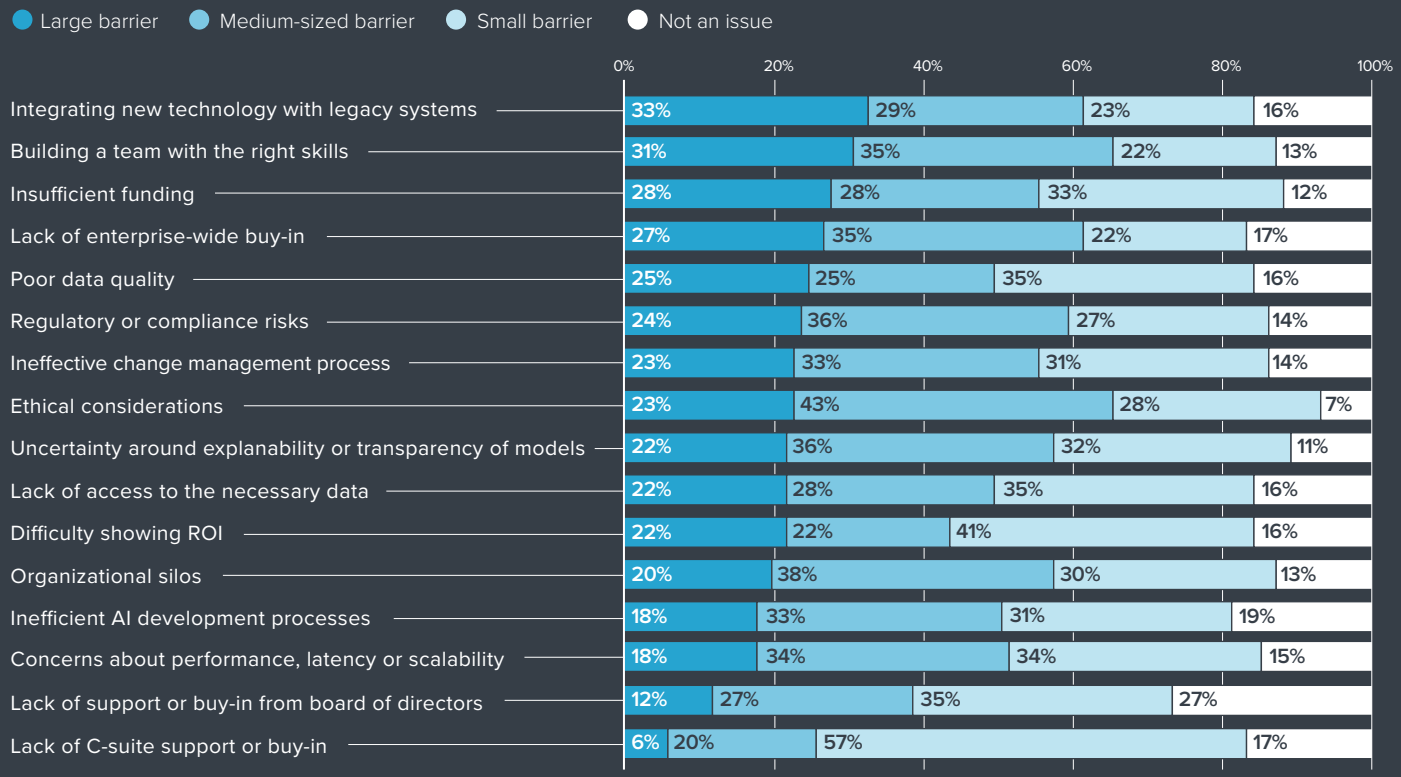
Source: Corinium Intelligence, 2020

Most Data-Driven Enterprises Are Now Scaling AI Capabilities

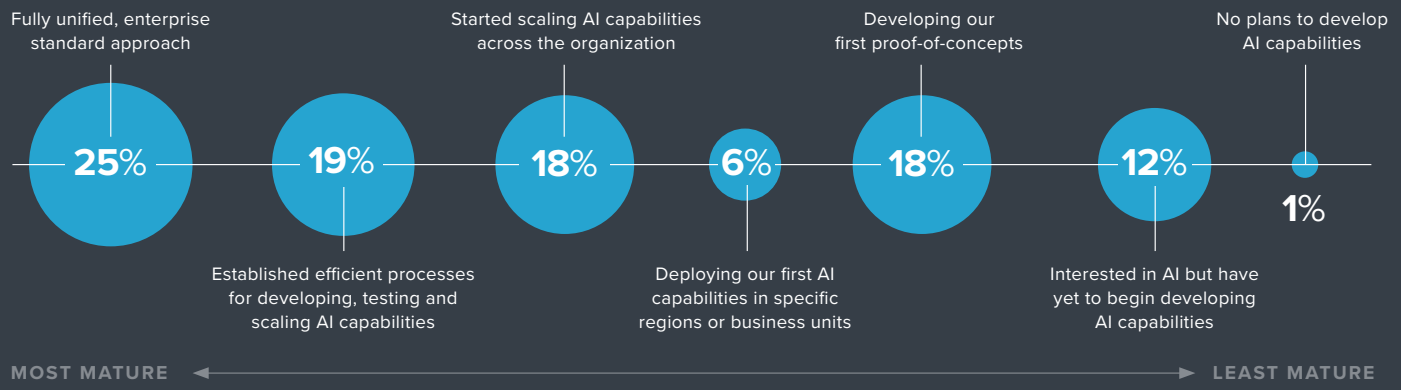
KEY FINDING

Enterprise CDOs and CAOs are facing a wide range of challenges as they increasingly look to scale AI capabilities and unleash their true business potential

The Barriers to AI Adoption Data and Analytics Leaders are Grappling with Today



How Data and Analytics Executives Rate Their Organizations' AI Maturity Levels



Source: Corinium Intelligence, 2020

Winning the Fight Against AI Fatigue

KEY FINDING

AI leaders must secure sufficient investment and maintain business-wide commitment to their projects if their organizations' AI transformations are to come to fruition

AI leaders may be winning the battle to get their boards to support their plans for AI adoption. But our survey of more than 100 C-level data and analytics leaders reveals that translating that support into the funding needed to deliver AI capabilities is proving to be more of a sticking point.

While all respondents agreed that AI's importance is at least somewhat accepted by their boards, 55% said 'insufficient funding' is at least a medium sized barrier to AI adoption in their organizations. Meanwhile, just 51% said they have an open line of communication with their boards.

This lack of communication between the two groups is one possible explanation for the gap between AI support and AI investment.

"Some companies are getting tired of AI," argues Jose A Murillo, CAO at Banorte. "My impression right now is that the use cases that have been implemented in most of the [financial services] industry have not proved that it's worth the effort. I'm starting to see some fatigue."

Of course, AI leaders need the board's ongoing support to sustain the investment and top-down mandate they need to successfully transform their organizations. So, communicating with key stakeholders regularly and preventing 'AI fatigue' is a key part of every analytics or AI leader's job.

To help CAOs and CDOs build support for their AI strategies, we asked our survey respondents how they believe AI will enhance their organizations and how they communicate the value of AI projects to the board. ▶

"The use cases that have been implemented in most of the industry have not proved that [AI is] worth the effort. I'm starting to see some fatigue"

Jose A Murillo
CAO, Banorte

The Top Four Benefits of Enterprise AI

There are essentially two kinds of AI project – those that seek to improve existing business processes through automation and those that look to fundamentally reimagine how a business operates.

This second approach is more disruptive, and some AI leaders may find that spearheading this kind of business transformation is beyond their remit.

As AXA PPP Healthcare CDAO Nirali Patel notes, the kinds of AI project a data or analytics executive can secure support for will depend on their board's broader culture and understanding of what AI can do.

"You get the organizations that focus on 'proofs of concept' and picking low hanging fruit," she says. "Then, you have a second type of organization that focuses on scalability."

"CDAOs in those organizations may appear to be less successful, because they're not getting value from their investments as quickly as possible," she adds. "But in the long run, these are the ones to look out for."

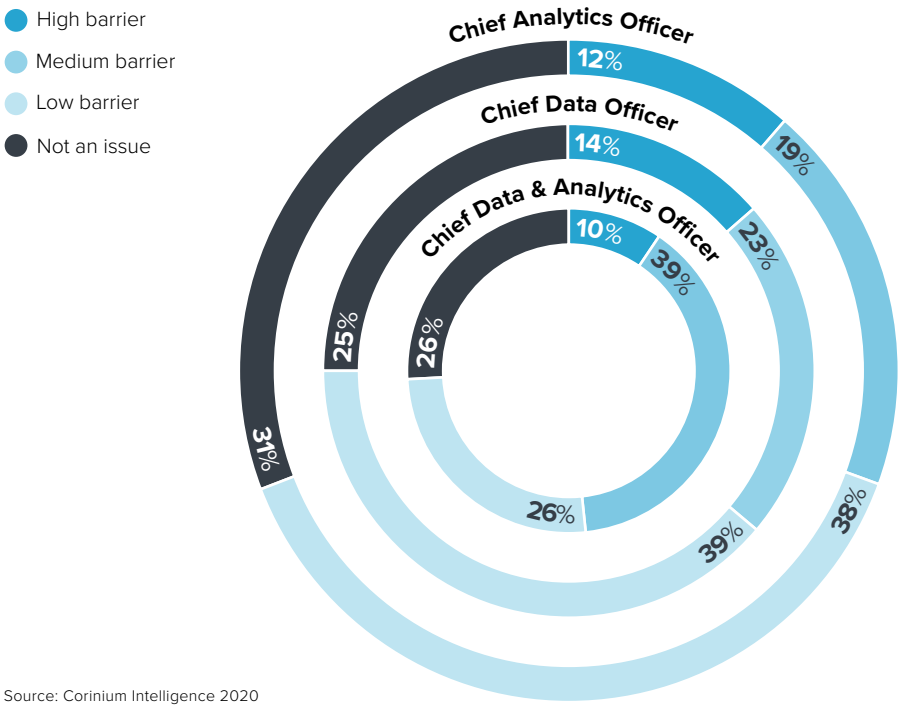
Our research shows that partially automating business processes is the most common goal of AI initiatives, with 80% of survey respondents citing this as a key benefit of AI. Meanwhile, 77% agreed that AI will help them fully automate some processes, 74% said it will help them create better customer engagement and 71% think it will improve their recruitment processes.

Reducing fraud or financial crime and automating or personalizing customer interactions are also popular AI goals, with 70% of respondents citing these as key benefits of using the technology. This will be particularly true for those looking to enhance customer experiences online and expand their digital payment channels in the wake of COVID-19.

"The general view of AI is quite positive from a number of people and they are expecting that it will help automate processes and make our work easier," says Bart Pietruszka, CDO and Head of Analytics at HSBC. "But it requires quite a lot of funds, investment and time." ▶

CAOs are Most Likely to Have Their Board's Support

To what extent does 'lack of support from the board of directors' represent a barrier to AI adoption in your organization?



Source: Corinium Intelligence 2020

"We focused a lot of our AI efforts on understanding the risk profile of our customers. That has helped us to reduce prices in a lot of products, so you have wider access at a lower cost"

Jose A Murillo
CAO, Banorte

"AI is helping us to build a behavioral mapping of our customers, so that we understand what really moves them," Murillo adds. "If you understand that a customer is really price sensitive or wants to build wealth, for example, that helps you tailor how you should address them and what offers to deploy."

Using AI to understand what motivates different customer groups is particularly important today, with people's circumstances shifting rapidly as a result of COVID-19. But in general, these findings say more about how AI is being used than they do about any intrinsic property of the technology.

The key for executives looking to build a business case for increased AI investment is to understand and quantify the impact a specific use case will have on how their business runs.

Communicating the Value of AI to the Board

The most strategic way to select AI projects that will deliver ROI is to start by identifying a pressing business need.

Once an executive knows how they need to transform their organization, they can evaluate possible ways to achieve that goal and design processes to measure the impact their chosen solution will have once launched.

"My general approach with AI and data science is to start by looking at what the business problem is," says Patel. "It's about making sure I'm using the right approach to solve the business problem and meet the business' needs."

Our research shows that different metrics are used to measure that impact, depending on how an AI is being used.

'Impact on customer satisfaction' and 'risks mitigated' were the two most frequently cited measurements for communicating the success of AI initiatives to the board. These were selected by 53% of respondents each.

'Process or resource usage optimization', 'impact on employee satisfaction' and 'model accuracy' were cited by 52%, 45% and 43% of respondents, respectively. This underscores the need to monitor the ongoing efficacy of AI algorithms to show key stakeholders they can be trusted.

Just 38% of our survey respondents use the revenue their AI projects generate as a way to communicate their AI successes to the board. Meanwhile, 37% say the same about 'savings generated' and only 29% use 'impact on employee behavior' as a key performance indicator.

These findings suggest that data and analytics leaders may find it easier to prioritize or secure buy-in for projects geared towards improving existing processes than they do for those targeting radical business transformation.

43%

of AI projects data or analytics leaders have **identified a business need for** are **not yet fully deployed**

Source: Corinium Intelligence, 2020

Ultimately, communicating the value of AI is about understanding, setting and meeting expectations. It starts with choosing the right projects and agreeing relevant metrics and KPIs to measure their impact with the board.

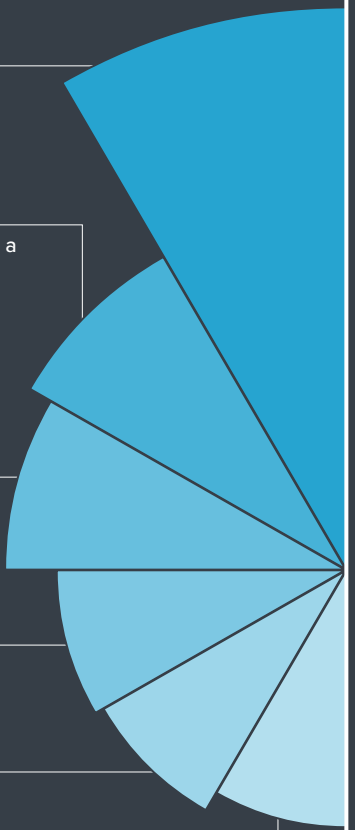
From there, the key to combatting AI fatigue is hitting those KPIs in the agreed timescales and communicating those wins loudly to key stakeholders. ■

How CDAOs Deliver AI Projects Efficiently

KEY FINDING

With almost 75% of enterprises adopting centralized AI team structures, enterprises are using a wide range of techniques to ensure they can deliver products efficiently

How Organizations Ensure They're Using AI Efficiently



74% Have a streamlined model development-to-production environment

48% 'Get it right the first time' with a standardized process

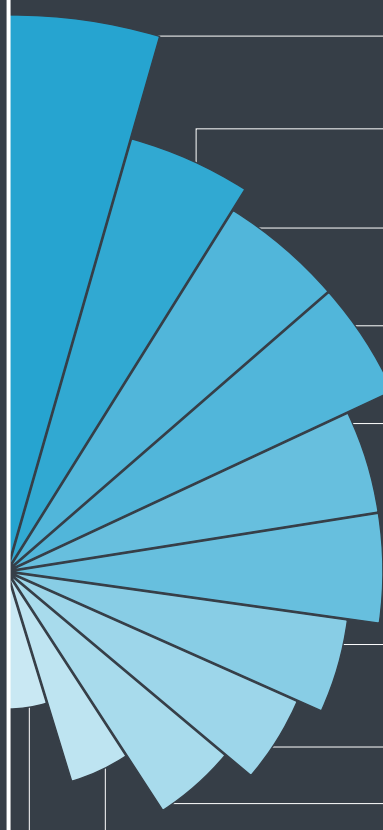
45% Have an AI skills and resources matrix (i.e. dotted line reporting structures)

38% Use open source tools

37% We deploy microservices

34% We're good at saying "no" to projects that aren't set up for success

The AI/ML/Analytics Methods or Algorithms Analytics Executives Say are Showing the Greatest Potential



68% Deep Learning

55% Association Rule Learning

52% Clustering

52% Regression

46% Decision Tree

46% Scorecards

42% Artificial Neural Network

39% Instance-Based

35% Ensemble

27% AutoML

17% Explainable AI

How Organizations Structure Their Dedicated AI Teams or Functions

44%
One single, centralized AI team

30%
Decentralized AI teams but with a single 'center of excellence'

26%
Decentralized AI teams serve different business units or regions

Source: Corinium Intelligence, 2020

Why Enterprises Must Start Prioritizing Responsible AI

KEY FINDING

With one in three data and analytics executives reporting that their organization isn't ready for stricter regulations around ethical AI, enterprises must be more proactive to get ahead of the 'responsible AI' movement

The ethics of AI is fast becoming a critical issue for all data and analytics executives in business today.

Ethical questions may once have been associated with AI applications such as self-driving cars or credit decisioning. But our survey of more than 100 C-level data and analytics leaders shows that they are now a key concern for virtually all of these executives.

More than 93% of respondents said that ethical considerations represented a barrier to AI adoption within their organizations.

"When you use AI to understand customers better, that knowledge is like a knife," says Jose A Murillo, CAO at Banorte. "You can use it to do surgery and do wonderful things, or you can really hurt someone."

AXA PPP Healthcare CDAO Nirali Patel agrees: "While someone will often be more than happy to share their data with you when it helps them be a better person or helps them do something or other, what they won't appreciate is a misuse of that data."

The pace of AI innovation has always outpaced the speed at which regulators can legislate about the technology. This has afforded developers unconstrained freedom to innovate and use AI to improve people's lives.

But as AI algorithms become increasingly sophisticated and their use becomes more widespread, the potential for the technology to have an unintended negative impact on society is growing. ▶

> *"When you use AI to understand customers better, that knowledge is like a knife. You can use it to do surgery and do wonderful things, or you can really hurt someone"*
>
> **Jose A Murillo**
> CAO, Banorte

AI leaders must take steps now to self-regulate with disciplined processes and procedures and ensure they're ready for stricter regulations around the ethical use of AI before they arrive.

How Enterprises are Promoting Ethical AI Use

Ensuring AI is used responsibly and ethically in business contexts is a huge but critical task. It's also one businesses are taking increasingly seriously. Our research shows that 96% of C-level data and analytics leaders have now put at least some ethical standards or processes in place.

"There's a lot of self-regulation that you need to do when using these tools," Murillo explains. "You want to use AI or machine learning to improve the service and products that you're rendering to customers."

93%

of C-level data and analytics leaders say **ethical considerations represent a barrier to AI adoption** within their organizations

Source: Corinium Intelligence, 2020

67%

of AI leaders **don't monitor their models** to ensure their **continued accuracy** and **prevent model drift**

Source: Corinium Intelligence, 2020

Almost half our survey respondents said they have strong model governance and management rules in place to support ethical AI usage, making this the most common approach to tackling the challenge.

Meanwhile, 47% have built debiasing steps into their model development processes to ensure consistent and fair treatment for variables such as gender and ethnicity. What's more, 43% are careful to ensure they have the right materials in place for if they are audited by a regulator and 41% rely on third parties to ensure that their models are ethical and unbiased.

However, just one in three have processes in place to monitor their models to ensure their continued accuracy and prevent model drift.

"Being ethical is not being blind to what's in the model," warns FICO CAO Scott Zoldi. "Organizations need to ensure that AI is designed robustly and is explainable and transparent, built ethically and governed by an auditable, recorded development process that is referenced as data shifts over time."

Responsible AI is About More Than Ethics

When customers trust businesses with their data, they don't just expect it to be used ethically. They also expect it to be kept secure.

Our research shows that 38% of enterprises with C-level data and analytics leaders have experienced some kind of data security issue. One in three have been affected by cybercrime and one in four have experienced a data breach. ▶

While basic data security is traditionally the cyber team's responsibility, data and analytics executives must take the lead to protect their organizations against adversarial AI attacks.

"Imagine I'm a bad guy and I'm going to use AI to attack an organization," Zoldi explains. "I may not be breaking any cyber security or IT protocol. I'm simply adding transactions into the stream to probe and test where the model weaknesses are. Or, maybe I just want to overwhelm the AI, so it shuts down or has a failure."

Our research shows that 24% of organizations with C-level data and analytics leaders have experienced data poisoning and 12% have been subject to other kinds of adversarial AI attacks. The most commonly cited issue was customer fraud, on 38% of the vote. Cybercrime or hacking was close behind at 33%.

These findings illustrate why data and analytics executives must act urgently to protect their organizations and ensure their AI capabilities provide consistent and quality experiences to their customers.

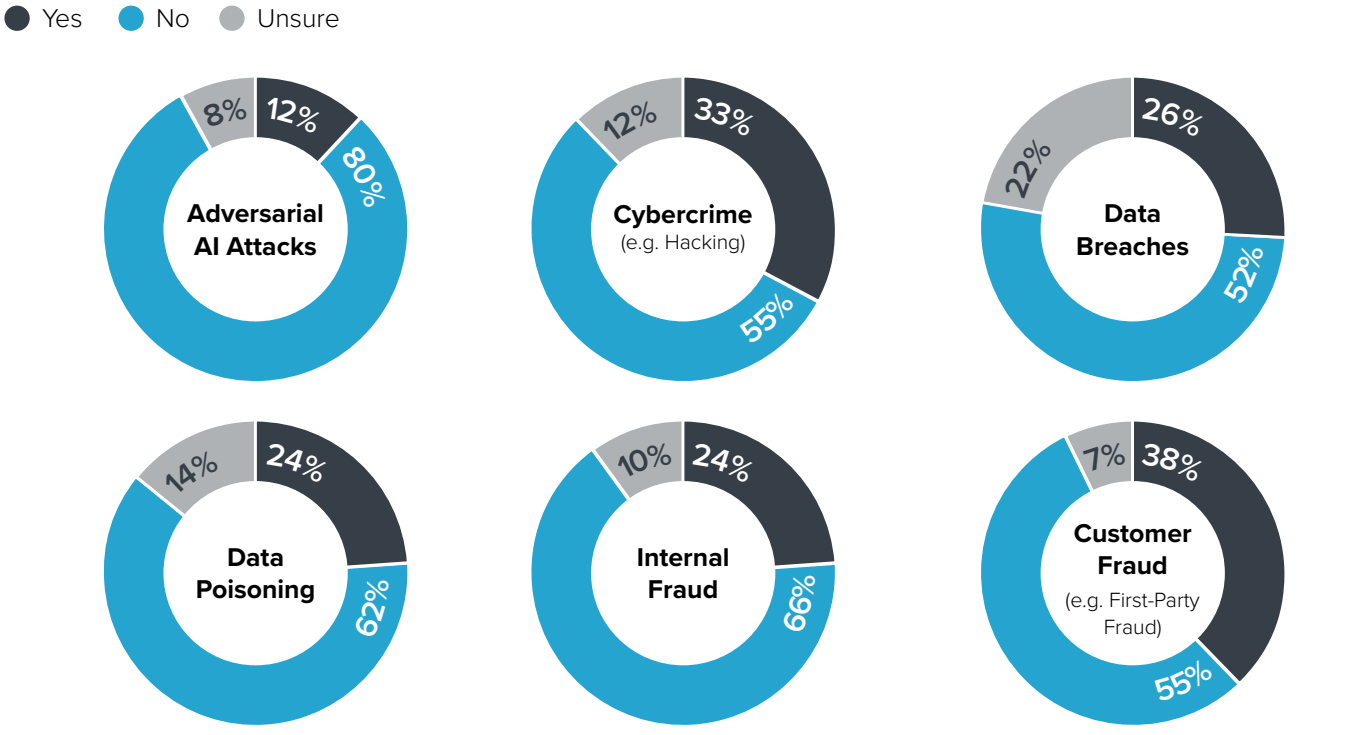
Combining these measures with a proactive approach to AI ethics is the best way to safeguard consumer trust in enterprise AI in the long-term. ■

"Organizations need to ensure that AI is designed robustly and is explainable and transparent, built ethically and governed by an auditable, recorded development process that is referenced as data shifts over time"

Scott Zoldi
CAO, FICO

Data Security Issues Pose a Threat to Enterprise AI

Has your organization experienced any of the following types of data security issue?



Source: Corinium Intelligence, 2020

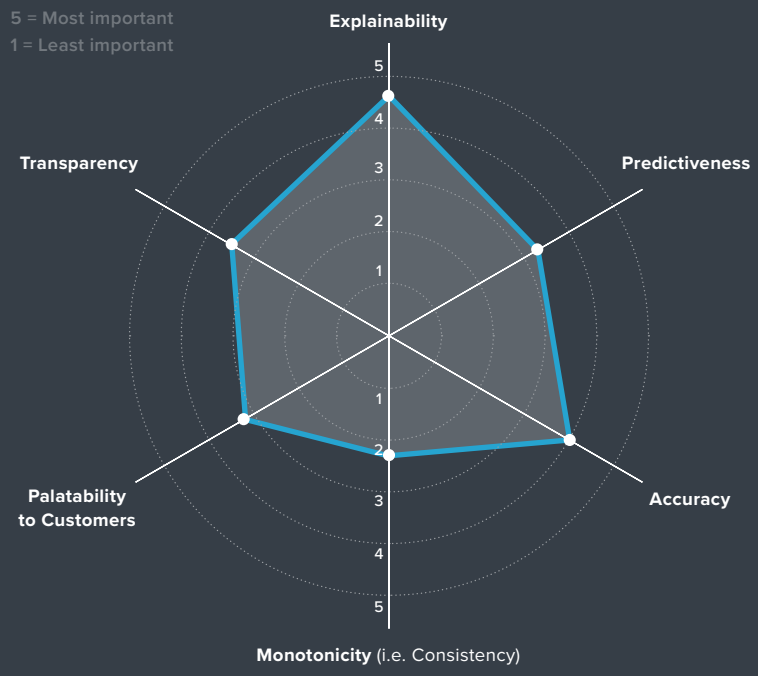
The State of Ethical AI in 2020

KEY FINDING

With many enterprises unprepared for stricter ethical AI regulations, we explore what CDAOs are doing to ensure their organizations are using AI responsibly

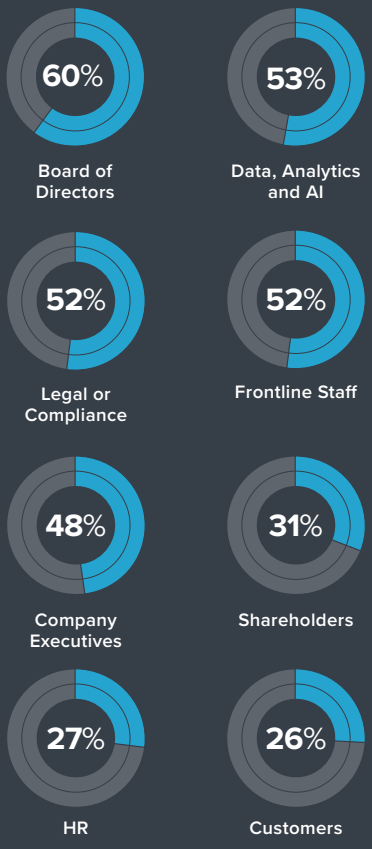
The Characteristics Analytics Executives Value Most When Developing AIs

How important are the following characteristics for ensuring business success when developing an AI product?



The Business Areas that are Pushing for Greater AI Responsibility

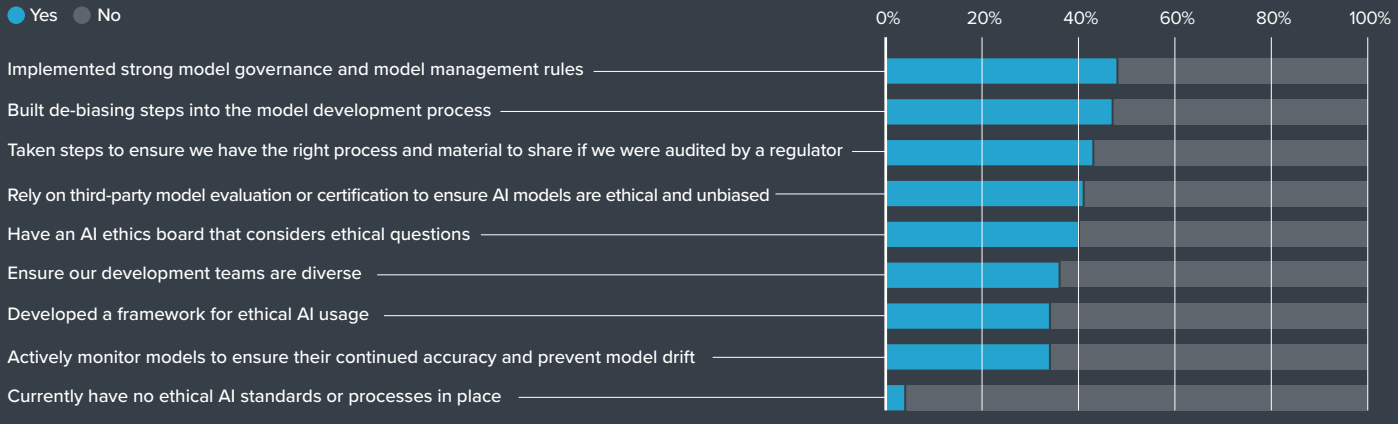
Which of the following business areas are pushing for greater AI responsibility within your organization?



67%

of organizations are **fully prepared for stricter regulations** around the ethical use of AI

The Standards and Processes Data and Analytics Executives Have Implemented to Ensure AI is Used Ethically



Source: Corinium Intelligence, 2020

About the FICO

FICO is the sponsor of this report and has a storied history as an innovator and pioneer in AI, ML and advanced analytics in the financial services industry and beyond. The ubiquitous FICO® Score is used in over 10 billion credit decisions a year and FICO's Falcon machine learning solution detects and prevents fraud on over 2.6 billion consumer payment cards around the world. The company was also recently named a category leader in AI Solutions from Chartis Research.

Many enterprises use the FICO platform behind the scenes to power their digital transformation and operationalize analytics to drive optimal business outcomes. They achieve this by bridging the data analytics and business teams to empower their organizations to achieve world-class results.

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By creating a centralized system of differentiation, organizations can create a competitive 'moat' that delivers amazing customer experiences and outsized business results.

Find out more at **www.fico.com**

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About the Editor

Solomon Radley is an experienced editor and reporter with a deep understanding of the data, analytics and CX space and close relationships with many of the sectors' most prominent C-Level executives.

He works with data and analytics, learning and development and customer experience leaders to champion new innovations and highlight how the world's most forward-thinking brands are using data to fuel their digital transformations.

To share your data story or enquire about appearing in a Corinium report, blog post or digital event, contact him directly at **solomon.radley@coriniumgroup.com**

Solomon Radley
Global Content Strategist,
Corinium Global Intelligence

Corinium

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