

Bridging the Data Gap: Discovering the Full Value of Cross-Functional Insights



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Key Takeaways

- Define success by identifying core business problems and ROI goals before data collection.
- Prioritize organizational buy-in to prevent adoption challenges from undermining technical solutions.
- Cross-functional data sharing significantly boosts innovation and market advantage (up to 50% and 12-28% respectively).
- Begin with focused departmental use cases before expanding to broader integration.
- Implement role-based access in data platforms to balance usability with compliance.

Despite heavy investment in data and analytics capabilities, pharmaceutical companies continue to struggle with translating vast amounts of information into actionable business intelligence. While 85% of organizations are investing heavily in data and AI technologies, 60% face significant integration challenges, according to Jason Smith, Chief Technology Officer, AI & Analytics at Within3.

"We're very data rich, but we're still struggling to have high value insights," Smith explained during his presentation on cross-functional data integration. "We find that 43% of these companies are really fragmented in how they're going about this decision making."

The Journey to Integrated Insights

Smith outlined a three-stage journey that organizations typically follow when developing their data integration capabilities. The process begins with addressing department-specific questions, evolves to cross-departmental integration, and ultimately achieves unified organizational insights.

At the departmental level, even simple standardization of data capture can drive significant improvements. Medical Affairs teams, for instance, often struggle with unstructured information scattered across CRM systems, SharePoint, and other repositories. By implementing structured data capture protocols enhanced by natural language processing, companies can immediately increase their ability to derive meaningful insights from already-available information.



Cross-Department Success Stories

The real power emerges when organizations begin connecting data across functional silos. Smith highlighted Pfizer's work with their breast cancer drug Ibrance as a compelling example.

"Pfizer had a challenge where they found out that physicians were prescribing Ibrance for male breast cancer off-label," Smith noted. With too few male breast cancer patients to conduct traditional clinical trials, Pfizer employed an innovative approach. "They integrated clinical trial data and worked with safety databases, pulling all this into a unified data lake which allowed them to essentially analyze all this information at once and provide enough real-world evidence to the FDA to seek approval without actually going through the initial clinical trials."

This approach not only accelerated market access but opened new revenue streams without the expense and time required for additional clinical studies.

Organization-Wide Integration: The Holy Grail

The most advanced stage involves predicting needs for trials, real-world studies, and market strategies simultaneously. Smith referenced Novartis's comprehensive approach to breaking down data silos.

"Novartis went through 200 different analytical use cases," Smith explained. "They created the FAIR principles [Findable, Accessible, Interoperable, Reusable] as a framework everyone agrees to, and integrated this into a cloud platform."

The results were transformative: "They reduced project setup from 2 weeks to 1 day," enabling faster insights from data covering millions of patients.

Building the Right Architecture

Successful data integration requires rethinking traditional technology stacks. "I actually think it's the data that has to sit at the top, you have to start there. The others you cannot layer on top—the platforms, then the applications, and then your cross-functional collaboration," Smith emphasized.

Companies that successfully implement this approach can see a 30% increase in functionality, particularly when appropriate AI and machine learning are applied to structured data foundations.

The Critical Human Element

While technology enablement is essential, Smith stressed that adoption remains the greatest challenge. "No matter what tool we

have, no matter how 90% plus my AI models that any one of us can deliver on these data...if we don't have the fundamental adoption within the organization, we are going to have issues."

Organizations need to secure cross-functional buy-in, establish leadership support, and create feedback mechanisms to evolve platforms and drive ROI.

Start Small, Think Big

For organizations beginning this journey, Smith advised starting with specific business problems rather than attempting to integrate everything at once.

"We don't always need all of it. Sometimes we just need different parts of it. We need a little bit from outside the four walls and a little bit from inside and maybe a couple of different departments. Then we can move the needle, then we can start to prove value, then we can evolve from there."

Companies that successfully navigate these challenges can realize substantial benefits: up to 50% increases in innovation capability and first-to-market advantages of 12-28%—translating to billions in potential revenue.

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