Embedded Analytics
Meaningful Measurements
Minus the Mishmash of Apps

October 2023

Embedded Analytics: Meaningful Measurements Minus the Mishmash of Apps

Vipin Tyagi, Principal – Axtria Inc.
John Hanafin, Assistant Marketing Manager – Axtria Inc.

Table of Contents

Introduction

Despite living in the modern age of always-on connections and uninterrupted streams of information, many companies still suffer from a lack of context. They are receiving data; they just don't know what it means in the bigger picture. If you're part of one of these companies, this fatal flaw prevents you and your customers from making smarter business decisions—and, as a result, missing out on critical revenue opportunities.

It's not just knowing what the data means. How you reach that understanding—the process itself—needs to be baked into your system. Companies are now relying on embedded analytics as an essential revenue generator that enables employees to make quicker decisions and data-driven choices without interrupting their workflow.

Embedded analytics has changed the game for apps and become a "must-have." It helps build product value, enables users to work more productively, improves sales demos, drives faster bottom-line growth, and provides a competitive edge.

It Begins with a Simple Question

"What do you do for a living?"

That question usually comes up every time you first meet someone. In the life sciences industry, that simple query can open doors for both sides of the conversation. Your author experienced this recently. While waiting for my turn at my physician's office, I saw a man with a suit and leather bag. He was overdressed to be a patient. I made some small talk with

him, and the question inevitably came up: *"What do you do for a living?"* He told me he was a pharmaceutical sales rep. After a while, he asked me what I do. I explained what Axtria does and proudly told him we also create applications for sales reps like him.

His response was shocking, to say the least: *"Oh, so you're the guys who create all these different applications for us, with all the information and key performance indicators we don't need."*

That taught me a lesson: **increasing the data culture in any organization is not about pushing as much information to users as possible; data has to be meaningful** to users. And I learned that what we consider first-generation embedded analytics is not enough. There is a need to move to next-gen embedded analytics.

Not Just a Pharma Solution

We can learn much about embedded analytics and real-time reporting by looking at examples beyond the pharma space. Take, for instance, Uber. As we all know, the company has made transportation easier since its launch in 2011. Rather

than making a phone call for car service, users can now book rides quickly and easily through an app. It then expanded to Uber Eats, giving users a simpler way to order food deliveries. And now, if you go to European countries, you can even book airline flights – all in the Uber app. And the key is the interaction between all three components.
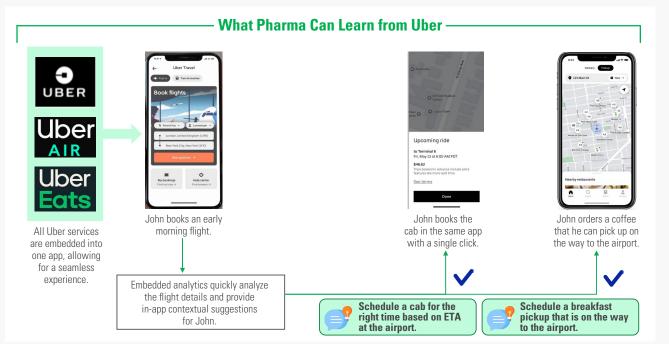
Take this hypothetical example: John books his flight for 6:00 AM. The Uber app will suggest he book his ride 24 to 48 hours in advance since it's an early morning time. On the day of his travel, as he's getting ready to take the ride, Uber suggests local breakfast options. This all takes place in one app – more importantly, each suggestion is **in context** with the situation.

> ## Context is key.

The Pharma Problem

Sadly, pharma has fallen somewhat behind in this kind of orchestration. Consider the current state of pharma sales representatives. We know these reps must toggle between

Figure 1: An example of interaction between apps where each suggestion is in context with the situation.

What Pharma Can Learn from Uber

All Uber services are embedded into one app, allowing for a seamless experience.

John books an early morning flight.

Embedded analytics quickly analyze the flight details and provide in-app contextual suggestions for John.

John books the cab in the same app with a single click.

John orders a coffee that he can pick up on the way to the airport.

Schedule a cab for the right time based on ETA at the airport.

Schedule a breakfast pickup that is on the way to the airport.

multiple apps daily. There's one for their customer relationship management system, a separate one for next best action suggestions, yet another for field reporting, and one more for sales operations, not to mention other applications for human resources, expenses, marketing, and other daily work necessities.

This disparate workflow process is unwieldy and unorganized. And as my sales rep friend pointed out to me, it's unloved.

Embedded Analytics to the Rescue

This multitude of apps is why we need embedded analytics. For a business user, it means the analytic process takes place in the context of a business process. It also means that the data and analytic experience will become a part of their daily work. While embedded analytics won't solve all their problems, it will vastly simplify their day-to-day work life.

Returning to the Uber example, the company knew that creating three separate applications wouldn't be user-friendly. And, most importantly, adoption wouldn't be high. That is something all pharma industry people have realized. In a recent survey by Product-Led Alliance and software provider

ThoughtSpot, just over half of respondents (55%) said they offered embedded analytics in their products. And 57% said embedded analytics directly increased revenue.[1]

You cannot just embed analytics in an application and be done with it. It takes a "product mindset" approach. You need to think about scalability. You need to think about security. The development of something this critical takes time.
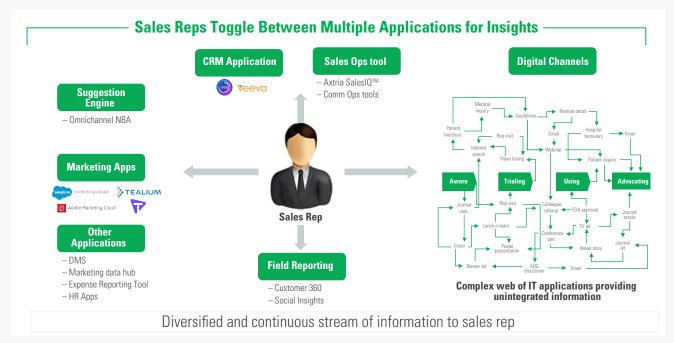
A Step-by-Step Approach

Ensuring the best possible implementation requires significant time, and the approach must be formulated carefully in the proper sequence. Let's look at the precise steps needed to tackle this daunting yet achievable task.

Step 1 - Analytical Maturity Model

Before we solve the problem, we need to know the size of the problem. Organizations should start with an assessment or a "blueprint" exercise that enables them to see how mature they are at an enterprise level, a region or country level, and even a department level. Once done, the company then decides what maturity level it wants to achieve in the next one to two years.

Figure 2: An example of the multiple, separate applications some pharma reps must use daily.

Source: Axtria Inc.

It is important that the plan be only one to two years in length. If it is more than that, the company will never be able to achieve maturity. The challenge with long-term plans is that technology, businesses, and processes change frequently, resulting in replanning multiple times.

Step 2 – The Voice of the Customer

While doing these assessments, always keep the voice of the customer in mind. Hear your customers' needs. Axtria did this assessment for multiple clients, and three common themes emerged.

a) **Keep the future field force in mind.** The field force's role is evolving into a full-service role that helps solve customer problems rather than generating leads or sales. This changing role also includes technological advancements, such as location-based analytics and generative artificial intelligence (AI) interaction with data, keeping the sales force well-informed.

b) **The 80-20 ratio.** Eighty percent of the field force needs basic information to perform their job. They do not want advanced key performance indicators (KPIs). Recall the sales rep I met. He is in this 80% portion of the field force. Embedded analytics is for these eight out of ten users.

The other 20% welcomes advanced KPIs and analytics because they are tech-savvy sales reps and need separate applications that provide these advanced data points.

c) **Push the sales reps' feedback to the decision engine.** One of the most essential topics for field forces today is that reps want their inputs to be considered in daily and weekly next best action (NBA) alerts. One Axtria customer also allowed users to give their reasons for rejecting an alert. That resulted in a decision engine incorporating the ad-hoc reason and predicting a better NBA next time.

Step 3: The Foundation Layer

Building a strong data foundation layer is crucial for embedded analytics. Most of the large pharma companies have either implemented a data lake/data warehouse or are in the process of implementing one. And it's not just for embedded analytics; any analytical work needs a single source of truth. Axtria DataMAx™ has all the advanced features that commercial pharma businesses need to create this foundation layer: data ingestion, data catalog, data quality and lineage, business rules management system, data linage, multi-tenancy, visualization, and reporting.
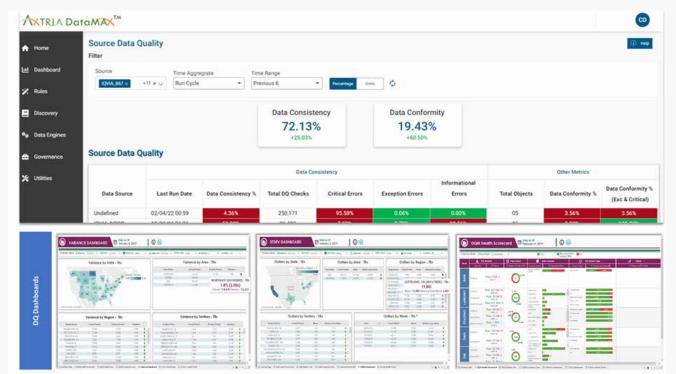
Figure 4: Axtria DataMAx™ and sample dashboard views

Source: Axtria Inc.

Step 4 – One Platform to Cater to All Analytical Needs

You've made it this far. You've done the groundwork needed to implement embedded analytics. However, to get groundbreaking results, there is a final step. You must make the results of your analytics easy to consume. That requires a single platform that ties in all pharma commercial analytics needs: marketing KPI, patient KPI, customer 360, activity, sales, goals, digital KPI, and more.

These indicators should be driven by and accessed through different personas. For example, the regional manager's views will differ from those of a sales rep. Account leader views won't look like area leader views, and so on. Another vital aspect is integrating operational reports and business reports in the same cockpit layer. That way, you build trust in the data, lessening the number of problem tickets from the field.

Axtria's Results: How the Steps Stack Up

Thanks to our valued and trusted partners, Axtria has had the opportunity to implement this four-step process for multiple customers, improving their embedded analytics maturity. In each case, we saw five immediate improvements for the field forces:

- Highly reliable data leading to increased adoption,

- Near real-time insight, with much faster analysis-ready data,

- Reduction in data discovery time because all insights appeared in one place,

- Increased efficiency of the field force,

- And superior customer engagements.

One of the best practices Axtria always recommends for any engagement is to survey the users to find the actual impacts. We did this for our embedded analytics efforts, and the feedback was overwhelming.

"The tool helps me identify potential opportunities or threats." – Account Leader

"This tool helps me plan my week within each of my five accounts every Monday morning." – Account Leader

"The system is very intuitive. I really think it will make my team better." – Area Leader

"When I am preparing for a field ride, I find this tool to be the most up-to-date and accurate for customer data as well as KPIs." – Regional Manager

The Future of Embedded Analytics

We have gained valuable insights from our extensive experience with both large and small clients. And we see three significant shifts developing in the world of embedded analytics.

1. **Technology Advancement –** With advancements in coding and capabilities, more integration will happen between software vendors. Currently, all business information (BI) tools have embedded licenses, including Qlik, Tableau, Power BI, MicroStrategy, and more. MicroStrategy has a HyperCard capability that can be embedded in any web application, including Microsoft Outlook or Salesforce. Axtria created a C360 HyperCard for its field reporting application. With it, you can hover the cursor on a physician's name, and it will open a Hyper card with the full C360 view for the sales rep.

2. **Low-code/No-code interface –** We are seeing more software in the market that empowers users to create their own analytics with minimal dependency on IT. This software requires very little or no coding from the user. One example is MS Power BI Copilot. In short, Copilot is a generative AI for dashboard use. Through it, you can type in simple text requests to get the data you want to show in the dashboard. You can define options, such as the color palette or type of graph (bar chart, pie chart, bubble graph, etc.), and MS Copilot will create the entire dashboard for you.

3. **Generative AI –** Many companies like Doximity, Veeva, and others are integrating ChatGPT-like options in the next version of their products. And we are not far from having generative AI integration in all analytical products and applications. OpenAI, the author of ChatGPT, has an updated version that can now answer questions from unstructured data, not just from within information management solutions like a data lake. Soon, IT departments will likely be able to create a basic dashboard for the field force that empowers users to ask their own relevant questions and receive answers.

Conclusion

You now know how embedded analytics empowers you with a competitive differentiator and offers a sustainable competitive advantage. If you want to stand out from your competitors, modern analytics embedded within your applications can help you. With timely and easily digestible information, you'll be able to evaluate more data than ever, serve up actionable insights, and unlock the wealth of critical wisdom hidden in your current applications.

References

1. Kowieski J. Embedded analytics: a step-by-step guide to unlocking your data's potential. ThoughtSpot March 2, 2023. Accessed October 11, 2023. https://www.thoughtspot.com/data-trends/embedded-analytics

Vipin Tyagi
Principal – Axtria Inc.
E: vipin.tyagi@axtria.com

John Hanafin
Assistant Marketing Manager – Axtria Inc.
E: john.hanafin@axtria.com

Contact Us

+1-877-9AXTRIA
connect@axtria.com

300 Connell Drive,
Suite 5000
Berkeley Heights,
NJ 07922

Disclaimer

Axtria® understands the compliance requirements behind personalization and we do not work with any personally identifiable data that can identify an end-customer of a business.

We have the strictest data security guidelines in place as we work with businesses to improve the experience for their customers.

🌐 www.axtria.com

✉ connect@axtria.com

✕ @Axtria

f facebook.com/Axtria

in Axtria – Ingenious Insights

Founded in 2010, Axtria is a global provider of cloud software and data analytics to the life sciences industry. We help life sciences companies transform the product commercialization journey to drive sales growth and improve healthcare outcomes for patients. We continue to leapfrog competition with platforms that deploy artificial intelligence and machine learning. Our cloud-based platforms - Axtria DataMAx™, Axtria SalesIQ™, Axtria InsightsMAx™, Axtria CustomerIQ™, and Axtria MarketingIQ™ - enable customers to efficiently manage data, leverage data science to deliver insights for sales and marketing planning, and manage end-to-end commercial operations. We help customers in the complete journey from data to insights to operations.

For more information, visit www.axtria.com.

Follow Axtria on X, Facebook, Instagram, and LinkedIn.