

Data-Driven Digital Transformation in the Pharmaceutical Industry

Publicis Health has found that the further a pharmaceutical business is along the data maturity curve, the higher it fares on metrics such as market capitalization and shareholder returns².

Pharmaceutical companies continue to face disruption in their market and traditional business processes. Although the peak of the patent cliff has passed and R&D productivity is increasing, the industry must still navigate major changes related to the following trends:

- **Increased collaboration** with other pharmaceutical companies, academics, outsourcing partners, and members of the healthcare community
- **Active mergers and acquisitions** in the sector
- Global **increases in regulation** and oversight
- Shift to **value-based pricing** for pharmaceutical products
- Changing business models, including a move to **beyond the pill** services

Taken together, it is clear that the pharmaceutical industry is at the forefront of the global trend toward a data-driven world. Accenture sees “seismic shifts of healthcare disruption. Digital is the driver, and data is in the driving seat.” Pharmaceutical companies will have to respond to this healthcare disruption with digital disruption of their own, driven through better use of their data assets. While data has always been important to the pharmaceutical industry, it has not always been managed as a corporate asset. There are signs that this stance is changing. A 2018 PAC survey showed that this strengthened focus on data as a corporate asset is driving an increased focus on data management. Eighty-four percent of surveyed senior managers and executives see data management as an important factor for their digital transformation.¹

Active data management provides you with the foundation of trusted data that is required to become more agile, realize new growth opportunities, and create new medicines and treatments. Publicis Health has found that the further a pharmaceutical business is along the data maturity curve, the higher it fares on metrics such as market capitalization and shareholder returns².

¹ Why Data is the Fuel of Digital Transformation, PAC Germany, 2018

² <http://www.visualcapitalist.com/big-data-healthcare/>

“With Salesforce integrated seamlessly with our operational systems, we’re moving closer to our customers to best interpret their needs and deliver the service and care they expect.”

—Sue Corwin, Associate Director, Commercial & Business Systems, Millennium: The Takeda Oncology Company

Patient Centricity and Beyond the Pill

The world’s population is increasingly embracing digital channels for information, transactions, and community interactions. Patients are not exceptions to this rule, and pharmaceutical companies are taking note. Isabelle Bocher Pianka, chief patient affairs officer at Ipsen, states that Ipsen is “...preparing ourselves for the challenge of tomorrow because the patient voice is becoming louder, and it’s clear the industry will need to include this dimension into its entire value chain.”³ If pharmaceutical companies are unable to fulfill the information needs of their target patient population, they risk losing their influence over patients to other parties.

As pharmaceutical companies become increasingly active in online conversations about diseases, conditions, and treatments, identifying individuals who are part of this conversation is important. Master Data Management technology ensures the success of these big data analytics projects by uncovering accurate relationships for a 360-degree view of patients, healthcare providers, and products. This technology can help by:

1. Finding **relationships** that were previously hidden
2. Rapidly **enriching** existing data with new sources of data
3. **Organizing** the data to provide context for big data (and other) analytics

Data Integration technology that draws together the business, IT, and data scientists is crucial in the fast-moving world of patient centricity. A pharmaceutical company has the technology to combine data from internal, external, and non-traditional sources in just 17 hours. These tasks previously took two to three weeks. The company has dramatically accelerated its decision cycle, as well as its ability to provide prompt answers to questions.

Cloud and Big Data: Delivering on the Promise

Pharmaceutical companies are migrating data and applications to the cloud for cost savings and efficiencies that internally hosted applications can’t deliver. They’re also investing in big data technologies specifically designed to harvest value from large volumes of data. However, these tool sets are only as good as the data that feeds them – and without trusted data, they cannot deliver a clear ROI based on business measurements.

Moving applications to the cloud risks recreating the typical point-to-point complexity of traditional data integration, slowing down data movement and undermining the promise of business agility that cloud applications bring. Efficient hub-based data synchronization with SaaS applications, such as Veeva, and other leading cloud ecosystems will significantly reduce costs, increase the pace of business, and allow skilled employees to focus on delivering value.

While big data technologies such as Hadoop exponentially increase analytical processing power, they don’t always deliver a clear ROI. In fact, only about 30 percent of companies investing in big data have projects deployed⁴. As big data technologies continue to advance rapidly, development resources remain scarce, contributing to the poor returns. However, by leveraging data cataloging

³http://www.pharmatimes.com/magazine/2018/may_2018/walking_the_patient_centric_talk

⁴Survey Analysis: Big Data Investment Grows but Deployments Remain Scarce in 2014, 9 September 2014, Gartner

“There’s an opportunity for us to have a strategic advantage by bringing together diagnostics and pharma with data management. This triangle is almost impossible for anybody else to copy.”

—Severin Schwan, CEO Roche

and data preparation technologies, projects using big data technology can be executed faster without a specialized knowledge of big data technologies. Excel-like self-service data preparation tools let business analysts quickly blend data into insights. Asset tagging, with some assistance from AI, enriches data assets, allowing sharing and facilitating reuse to increase operational efficiency. With active data management in big data environments, projects teams can deliver business insights more quickly, and scale proof of concepts to enterprise standard applications more efficiently.

Adaptive Biotechnologies is embracing both cloud and big data. They had a need to gain greater visibility into large volumes of data across sources to power faster research in a rapidly moving industry. To achieve this, they consolidated data and implemented a cost-effective, agile, and scalable cloud analytics solution that enables self-service. This in turn accelerated collaboration, saved hours of work on a daily basis, recovered revenue, and simplified connectivity between data sources.

Finance, Mergers and Acquisitions

M&A activity in the first half of 2018 shows significant growth over 2017, and is predicted to remain strong into 2019⁵. This trend is likely to continue, and not only because the pharmaceutical landscape is fragmented and undergoing transformation. After a merger or acquisition, public companies need to show a unified face to customers and shareholders. They often have only a limited time to integrate their data and applications to publish consolidated financial reports.

Enterprise data catalog technologies provide powerful data profiling tools that quickly discover where data resides across all applications for integration purposes. These technologies include features that deliver an effective and efficient communication channel between business and IT users, allowing for integration projects to be completed faster at lower risk.

One of the world’s leading research-oriented pharmaceutical and healthcare companies, GlaxoSmithKline, is the offspring of a merger between two other large international pharmaceutical firms. After the merger, its ability to operate efficiently and make accurate strategic sales decisions depended on creating a single, powerful, integrated IT infrastructure as quickly as possible. Use of data integration and intelligent data quality technology led to a 30 percent reduction in development costs, in part because these technologies reduced the time to perform routine development tasks by 75 percent.

Summary

The pharmaceutical industry is being caught up in global digital disruption. Global pharmaceutical executives increasingly acknowledge that future competitiveness depends on the ability to manage data most effectively and efficiently. In this new normal of data-fueled digital transformation, the companies that succeed will be the ones that best manage, use, and

⁵Genetic Engineering & Biotechnology News, 12 June 2018

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We invite you to explore all that Informatica has to offer—and unleash the power of data to drive your next intelligent disruption.

share data. Companies that enable their employees and business processes with trusted data will gain clear advantages in three areas:

- Significantly reducing the (distributed) cost of data management tasks through re-use of trusted data
- Improving efficiencies for all employees, enabling them to focus on value-generating activities
- Rapidly developing new data-fueled opportunities and processes

Transformation to a data-driven enterprise is not necessarily an immediate change.

Pharmaceutical companies are building a foundation of data one project at a time, delivering business value from trusted data at regular intervals. However, in order to move up the data maturity curve, organizations must be working towards a common data management goal: the ability to manage, and govern data in a consistent manner regardless of where the data resides – on-premises, in the cloud, in traditional data stores, or cutting-edge technology. Through a consistent approach to data management, pharmaceutical companies can build a foundational layer of trusted data that can easily be deployed for new purposes. This ready availability of data will provide the agility to quickly adopt the new business models and systems required to remain competitive and relevant in a world that is digitizing rapidly.

Visit [Informatica.com](https://www.informatica.com) to find out more about our data management capabilities for pharmaceutical companies.



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