



Advanced Data Analytics for Commercial Excellence in Pharma

Courtesy of: **DATA
INTELLIGENCE**
Business Intelligence
Solutions for Pharma

About Data Intelligence, a SCIO Health Analytics® Company

Data Intelligence specialise in providing business intelligence and analytics solutions for the global pharma industry.

PharmaPRECISION™ is a unique offering from Data Intelligence that uses diverse analytical techniques to help companies maximize their ROI. PharmaPRECISION integrates complex, large volumes of sales and marketing data from multiple sources and using advanced analytical techniques, analyses the data to provide greater insights and value.

Led by Christian Ager, the team of Data Scientists are experts in providing bespoke solutions, tailored to your needs, providing valuable insights on your secondary data. We have a range of offerings relating to commercial effectiveness with industry expertise and robust methodologies, which will equip commercial organisations with advanced insights to make better-informed decisions.

Together, Data Intelligence and SCIO Health Analytics deliver solutions to over 50 healthcare organizations and are one of the very few analytics companies specialising in Healthcare and Life Sciences. Our specialist team of Life Sciences, healthcare informatics, data analytics and technology experts enable us to provide a broad range of services to the Healthcare and Life Sciences industry.

“The PharmaPRECISION™ Team at Data Intelligence have been a true partner in supporting us with sub-national target-setting, offering a bespoke service that is not only insightful and comprehensive in its analytics, but reliable and delivered in a time-honoured fashion.”

Mark Allen, Field Operations Manager, Bristol-Myers Squibb

At the heart of our products and services, lies our award winning PharmaANALYTICS™ software-as-a-service platform. We offer a portfolio of capabilities that bring together fragmented sales and marketing data wherever it comes from in a single, powerful, secure platform with front-end tools or dashboards tailored to the individual users' needs. Our solutions can be configured and deployed according to your requirements and infrastructure and are scalable and operate in-country, regionally and globally.

Our users have access to personalised accurate and relevant insights, available via multiple devices both offline or online, empowering them to quickly respond to opportunities and challenges.

Hosted in the Azure Cloud, on dedicated servers or on premise, Data Intelligence provides a secure environment on a fully configurable and scalable platform, supported by a team of pharma-experienced professionals.

Find out why 8 of the top 15 pharma companies have chosen Data Intelligence: www.data-intel.net

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“The high quality of analysis delivered by the PharmaPRECISION™ Team at Data Intelligence provided us with clear actionable results which enabled us to target specific accounts with a view to enhancing patient outcomes. The quality of the analysis combined with the expertise in understanding complex pharma data means that we would highly recommend Data Intelligence for future projects”

Top three Bio-Tech Company



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Advanced Data Analytics for Commercial Excellence in Pharma

Pharma companies are no strangers to using advanced data analytics to gain a competitive edge on the science and manufacturing part of their business. But these days, ongoing changes within global healthcare markets that directly impact SFE mean companies must extract ever greater insight from data to support their commercial operations including sales and Key Account Management (KAM) field-based teams.

This need is generally recognised within the pharma industry and savvy companies are embracing new solutions that can help them effectively deploy the processes and analytics methodologies required to collect, integrate and convert data into insights that field forces value and can use to optimise SFE. These advanced data analytics solutions allow companies to use the abundance of available data to identify business opportunities and achieve commercial excellence, rather than drowning in a sea of numbers.

The Next Generation Sales Force: Embracing Advanced Data Analytics

Many pharma stakeholders are questioning how sales reps fit into this new business landscape, whereas others see opportunities for the pharma sales function to reinvent itself into a powerful force once more. The next generation sales force, enabled by data and armed with greater knowledge, has the potential to deliver more value than ever by playing an active role in improving health outcomes.² New skills and digital tools permit sales reps to address not only the needs of physicians, but also those of a vast network of buyers and influencers such as nurses, consultants, pharmacies, payers and reimbursement decision makers.

Moreover, a company's sales force can now offer time-strapped doctors tools and solutions that go beyond the product they're selling. This could include patient-focused services, access and discharge programmes, and other patient-oriented solutions. There is a plethora of opportunities to increase sales that should not be underestimated.

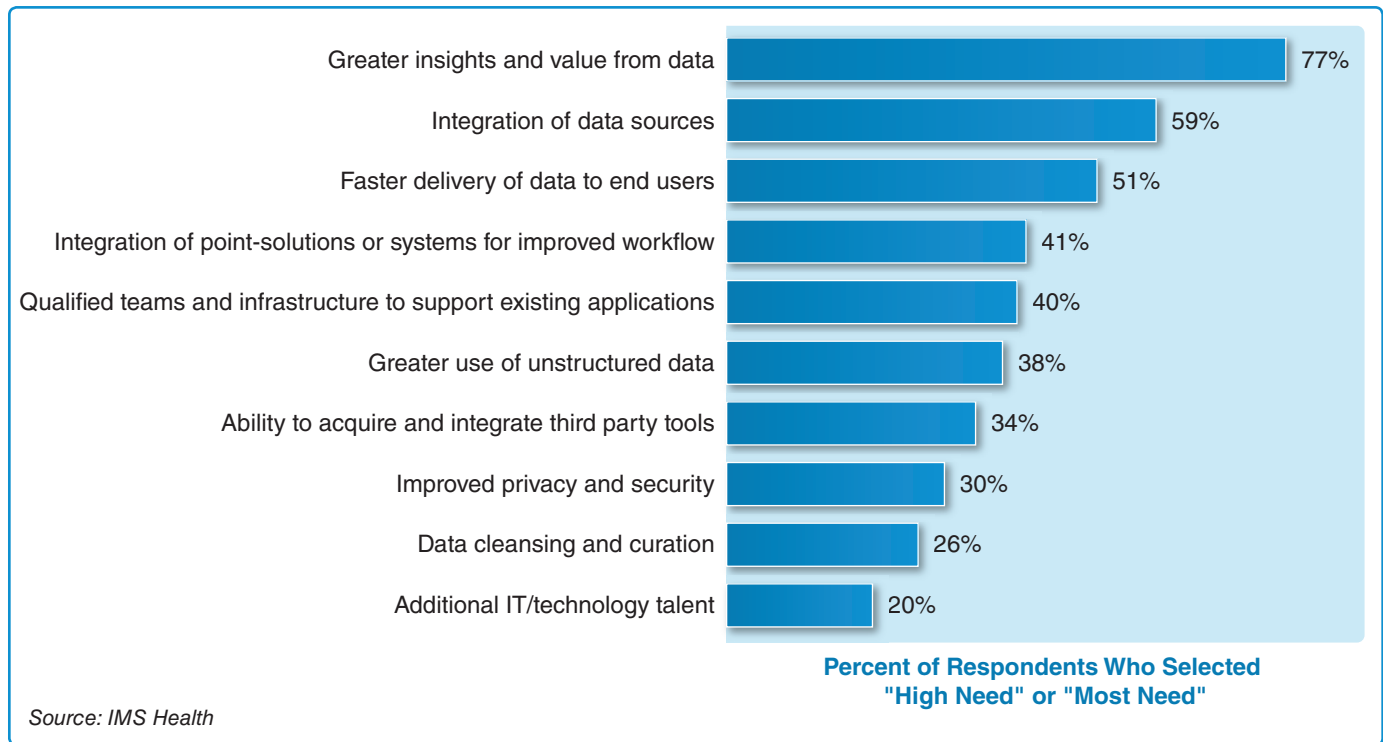
Advanced data analytics refers to the complex analysis of data using algorithms and advanced analytical techniques such as sophisticated statistical models, machine learning, forecasting, visualisation, neural networks and other advanced data mining techniques. Advanced data analytics determines future trends and outcomes from historical sales and marketing data.¹ It tells how existing and potential customers are likely to behave in the future.

"This means that sales reps have to use their intuition more and be more creative in their roles, which points to the KAM model," explains Christian Ager, an analytics consultant at Data Intelligence. "To be more effective," he says, "not only do they need to have sales competency, they have to have project management skills as they track a patient's journey through the healthcare system"

This is where advanced data analytics come in. To maximise SFE, sales and KAM field forces need to be able to tap into and gain valuable business insights from the vast amounts of internal and third-party data at their disposal in a way that addresses the business challenges that are unique to their particular company. Turning those challenges into opportunities through the use of that data is where companies often find themselves in a quandary, as gaps in the data, skills and tools required for advanced analytics can surface.

Indeed, one industry survey showed that the top three needs of a life sciences company were associated with data, with 77 percent of respondents wanting greater insights and value from data,

Figure 1. Needs of Life Sciences/Pharmaceutical Companies



59 percent seeking integration of data sources and 51 percent looking for faster delivery of data to end users (Figure 1).³

Acknowledging this trend, Data Intelligence Client Partner Director, Andrew Armitage, points to some major areas in which companies feel there is a huge potential to gain greater insights generated from data, including:

- Contraindications and retention of treatment
- Pricing plans
- Clinical trial data and optimisation solutions
- Economic evaluation
- Inventory planning and maximising cost efficiency
- Epidemiological models and forecasting
- Sales incentive target setting
- Customer/account segmentation
- Health Economics Outcomes Research (HEOR)

Taking sales incentive target-setting as an example, Mr. Armitage explains that pharma companies have a real opportunity to create fair and equitable incentive plans that have been well-designed in order to drive motivation and, in-turn, develop and retain talent within the field force. Using advanced analytics,

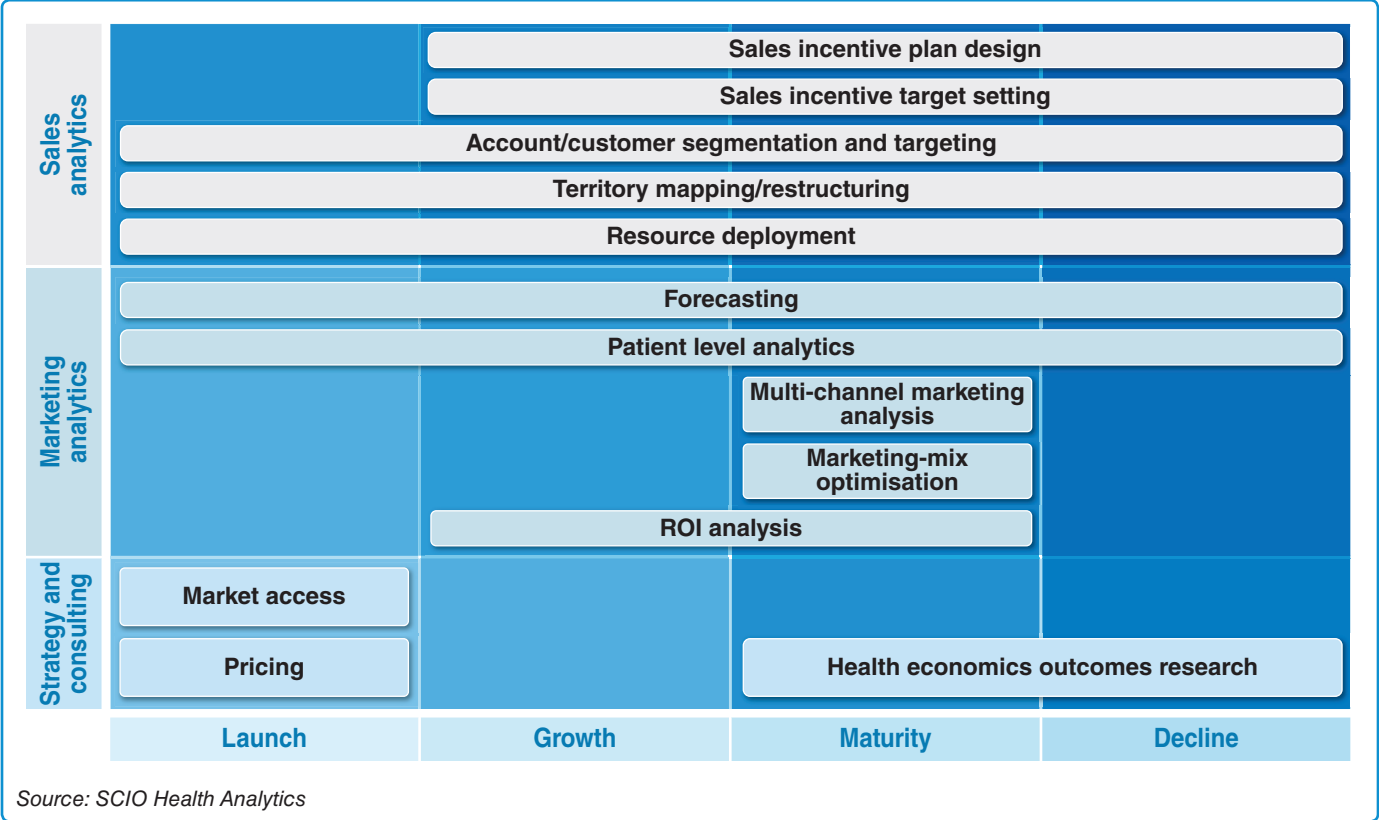
companies can ensure they are implementing a consistent model across their entire portfolio and keeping the sales force motivated through rewarding results fairly.

Cost-effectiveness studies can include efficacy and cost analysis between two or more drugs in the market space. Companies are also increasingly looking at patient-reported outcomes data, which assess:

- Well-being
- How patients respond to treatment
- Patient preferences and satisfaction with treatment
- Factors that influence adherence

“The main aim of pharmaceutical and biotech companies with regard to real-world settings and cost effectiveness is to highlight the clinical data in order to demonstrate a value-based proposition for their product as requirements become more stringent,” says Mr. Armitage. To this end, “HEOR / RWE data and analytics are becoming more important in the pharma world and how companies are using the data to support strategy, brand positioning and best-in-class principles. Advanced data analytics can drive actionable insights around such areas,” he adds.

Figure 2. Advanced Analytics Through the Commercial Life Cycle



Game-changing Insights from Data Require a Precise Approach

An understanding of how the different functions in each pharma company interact is critical to the success of advanced analytics solutions, whereby multiple stakeholders are required to put game-changing insights into the hands of commercial field forces. Without this understanding, problems can arise where the company cannot leverage its data to optimise business intelligence “It’s really important to make sure that the focus lines up in all departments where possible and across all functions within the company,” stresses Mr. Armitage. This is just one scenario where a consultative approach to advanced data analytics can help companies.

It is important to emphasise that a ‘one-size-fits-all’ approach to advanced analytics is unlikely to yield gains in SFE that translate into significant performance improvements. “Each company presents uniquely different issues or challenges around sales force excellence. These companies have different platforms,

different insights, different resource structures, different budgets, different strategies, etc., however all striving to provide one version of the truth,” notes Mr. Armitage.

As such, companies that want to see real results need to match their business challenge – whether it is market access, motivation of a sales force or understanding a product’s distribution in local markets, for example – with an advanced data analytics solution that is tailored to address their specific and sometimes unique needs.

Applications for Advanced Data Analytics

Customised advanced data analytics techniques aimed at addressing a company’s particular business challenges and thus improving SFE are in high demand. Depending on the unique circumstances, tailored solutions can vary greatly, from being quite straightforward to incredibly complex. Some of the more frequently sought out applications for advanced data analytics are presented below. It should be noted that some techniques are only applicable at certain points during a product’s life cycle, whereas others can and should be conducted at regular intervals during the life of a product.

Key Takeaways

With ongoing changes in global healthcare markets, the pharma industry is increasingly turning to data to gain valuable business insights that will take SFE to the next level. Keeping this in mind, companies should resonate with the following messages:

- Sales reps have to use their intuition more and need to have knowledge at their fingertips, which gives rise to the KAM model
- Pharma companies can gain a competitive advantage in their SFE performance from a combination of the right pharma industry expertise and the right analytical know-how
- Gaining greater insights and value from data analytics, including tackling market access and value-based propositions, can drive better business decisions and performance
- Pharma companies that can optimise their platforms and solutions, supporting cross-organisational strategies, will be better-equipped to drive improvement in sales performance through data analysis and insights
- SFE advanced data analytics solutions need to be flexible enough to handle a wide range of markets, customers and sales activities
- Advanced data analytics can address a variety of business challenges, but any solution should be tailored to a company's specific needs

Top 10 Biotech Company – Average Duration of Treatment

The needs and challenges	<ul style="list-style-type: none"> • Lack of unique patient identifiers • Only sell-in data to pharmacies was available, resulting in the inability to determine new/existing patients and corresponding different strengths of the brand prescribed over time • A lack of a clean database that relied heavily on manually entered inaccurate or incomplete data • Unreliable ADoT analysis - company was looking for a more robust methodology • Results of analysis not validated with relevant Life Sciences secondary research
The solution	<p>Patient-level analytics delivered:</p> <ul style="list-style-type: none"> • Cleansed data where patients, accounts and pharmacies were mapped objectively • Distribution of accounts within cities & their ADoT • Overall country ADoT at unique patient/account identifier levels • Top accounts with low ADoT and a large patient pool for promotional and educational awareness • Country switch analysis, i.e. the number of patients moving from higher to lower strength and vice-versa • Strength most widely purchased by the patient • Comparison of the average ADoT with neighbouring country • Validated/corroborated data analysis results
The benefits	<ul style="list-style-type: none"> • Identifying accounts with lower ADoT ensures the right strategy for promotional and educational awareness • Achieving longer ADoT and better manageable side-effects means patients more likely to remain on therapy • Robust identification of low ADoT accounts can motivate and instil confidence in sales forces to target specific Health Care Providers (HCPs) • Longer ADoT and better health outcomes better aligns commercial teams with their objectives

Top 20 Pharma Company – Forecasting

The needs and challenges	<ul style="list-style-type: none"> • Lack of robust and dependable forecast methodology to deliver baseline volume • Physician estimates (primary research) questionable as they may not represent the entire universe/patient population • Limited historical sales data for the inline product • Need to validate/corroborate with relevant Life Sciences information • Development of appropriate assumptions and generation of scenarios
The solution	<p>Inline demand and patient-based forecasting methodology delivered:</p> <ul style="list-style-type: none"> • No. of estimated patients/revenue forecast using epidemiology trends and identifying factors that influence systematic and random demand • Demand forecast in monetary terms using time series modelling on the relevant historical data • Point and interval forecasts • Validated/corroborated forecasts using forecast accuracy measures like Mean Absolute Percentage Error (MAPE), back-forecasting and relevant Life Sciences information
The benefit	<ul style="list-style-type: none"> • Adoption of more specific supply-chain strategies vital to planning for sales, marketing and spending • Ensured effective allocation of quotas • Improved acceptability/trust/confidence among wider pool of doctors and patients

Endnotes

1. Gartner (n.d.) (2013) Advanced Analytics. Available from: <http://www.gartner.com/it-glossary/advanced-analytics>
2. Accenture Life Sciences (2015) The Rebirth Of The Pharmaceutical Sales Force. Available from: https://acnprod.accenture.com/us-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_13/Accenture-Rebirth-Pharmaceutical-Salesforce.pdf#zoom=50
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