IT@Pharma Special

Business intelligence for pharma

As market pressures demand increased innovation and shorter time-to-market product lifecycles, pharma companies need to re-think evaluating alternative business models. ***Sanjay Mehta****, CEO, MAIA Intelligence, writes about the need to focus on technologies such as business intelligence (BI) tools*

With the heightened competitive environment among new entrants in the pharma industry and the many challenges it currently faces, pharma companies need to use all the tools at their disposal to operate more efficiently, increase revenue and rebalance decision making power. To build a significant market share in an expanding and competitive drug market, pharma companies need information management solutions that allow them to make better business decisions, thereby, maintain revenue growth.

There is always a pressure on pharma companies to develop and launch new products. Allocation of assets and resources relating to new product development, the mix and priority of sales and marketing initiatives are very important. The vertical structure of organisation around product or therapeutic-specific silos has fostered the creation of multiple, disparate data sources and formats, creating islands of data. Real-time business activity monitoring across brands and functional departments, requires these data be integrated into a single repository, which represents a significant challenge to the pharma industry.

The need for transparency has also impacted the way pharma CXO's think about their particular business processes, and continued heightened regulatory environment. BI for pharma has now become what ERP is for manufacturers.

With such a far-reaching scope of functions and concerns in the pharma industry, companies handle immense amounts of information. It’s hard to keep track of important information and even to know which information is valuable, and companies need the tools to take advantage of the myriad information at their disposal. The information technology available today allows pharma companies to make better business decisions and to better target performance goals. BI offers the industry, MIS reports, data analysis, and allows them to monitor the vast amounts of data that helps companies reduce costs, increase revenue, and maximise the value of information.

Associated with major changes in market dynamics, the emergence and growth of pharmaceutical informatics is providing pharmas with unprecedented access to detailed information about the sale, prescription, usage and payment for their own products, and those of their competitors. The new availability of this patient-centric data, combined with the need to address the decreased effectiveness of traditional promotions, has made

pharmas aware of the need to integrate information coming from both internal and external sources. BI solutions are being embraced as a means to translate and interpret this information in support of strategic and tactical business decisions.

In an increasingly competitive market, pharmacos can use BI to grow by improving product development, enhancing go-to-market strategies, increase operational performance, optimising their supply chains, regulatory compliance and drive revenue and market share. BI gives a better understanding of the market, and helps pharmacos meet expected market share goals for their products, other than improving the productivity and efficiency of the business users by helping them take informed decisions.

BI can also provide critical data analysis to pharmacos to support informed, strategic action. Data across functional departments can be integrated, providing context for business critical decisions. Pharmacos that embrace BI will be able to sustain key competitive advantage in a time when new market entrants, expiring exclusivity and the shifting balance of prescribing power represent daunting challenges to the industry. BI gives a true enterprise view across our value chain, providing management with greater operational insights and actionable data to help pharmacos more effectively navigate through the dynamic industry.

Enterprise-wide BI can integrate and coordinate data from R&D, sales and marketing, with critical external data vital to real-time adjustments to resources and priorities. Internal data, including information from product development, territory management systems, sales force automation tools and consumer direct marketing, can be examined across brands rather than within specific product areas. BI can enable decision support in real-time by integrating financial operational data with external data sources, such as patient-centric longitudinal data and prescriber data from PBMs, pharmacies, payers and data providers.

Top value drivers

- Increased sales effectiveness,
- additional revenues from existing drugs,
- reduced drug development and launch costs,
- greater regulatory compliance,
- improved product quality,
- greater return on promotional investment,
- greater persistency and patient compliance, and lowered risk of new product success are some of the top value drivers of BI.

BI helps decision makers make more informed decisions and supplies users with critical business information on their customers or partners, including information on behaviors and trends.

Hence, IT department at pharmacos can take control and use BI to produce data they need to facilitate decision making, reduce costs and improve profitability. BI allows the review product by manufactured date, expiry date, batch number, manufacturer, etc.

Furthermore, BI allows the comparison and review of past performances, in addition to looking forward with different "what if" models where the user can manipulate the data. A user can review historical trends; identify and analyze voluminous data, profitability, product mix, chemical formula mix or compare key performance indicators across timelines.

BI enables a clear understanding of business which is very crucial. There is a need for an instant view of current sales against budget or break-even, and a view of administrative tasks that are negatively affecting cash flow, including improper tracking of running items, drug returns for expired ones and timely replacement orders, tracking timely utilization of materials to avoid expiry, etc.

Analyse this...

In terms of customers, BI helps develop more targeted customer profiles that focus not only on medical products, but also on the ability to pay for them by analysing historical health trends in combination with demographics, along with identifying and targeting individuals and demographics that could be considered 'undiagnosed' with educational campaigns whose goal is to encourage these individuals to get screened and tested for possible issues. It also helps in combining product sales information with customer groups and customer channel information to analyse what tends to lead customers to fill prescriptions at a more consistent rate or what leads physicians to prescribe certain drugs at a higher rate

In terms of operations and finance, BI helps analyse the prescription activity in a geographic region or area to make sales force adjustments according to market size or penetration, along with dissecting buying trends from the largest customers (managed care providers and governments) to proactively create price points that benefit both the buyer and the organisation.

With huge expenditures in their marketing efforts, pharmacos must closely track sales performance and consumer behaviour to better target their marketing strategies and ensure the proper allocation of marketing funds. BI allows companies to identify which products are most profitable, monitor consumer behavior in terms of prescription renewal and product purchases, track the success of marketing campaigns, and analyse profitability by product, customer, geographical area, or other factors. As part of their ongoing analysis of the market and the competitive landscape of the industry, pharmacos can regularly track the market share of individual drugs and drug groups, by providing web based analytics to a sales force that is consistently disconnected, allowing them to answer not only detailed drug information questions, but also historical and trending questions; and targeting physicians who have high prescription rates of a certain drug or treatment with new drug information that treat complementary symptoms or conditions.

Relevant key performance indicators in sales and marketing are

- demographic analysis,
- customer segmentation,
- campaign analysis,
- payer analysis,
- prescriber analysis,
- sales force analysis,
- sales force support,
- detailing analysis,
- samples analysis,
- factory sales,
- market share analysis,
- and competitive market analysis.

BI also helps analyse buying tendencies and treatment outcomes to create more drug and product variations tailored directly towards different age groups and risk factors; combine demographics and patient historical trends to target 'quality of life' needs of patients (ie, lifestyle drugs) that improve the day-to-day living standards of patients, especially for non-acute medical conditions.

It also helps improve production schedules through analysis of which products stay on the shelves the longest and how well each product is selling, apart from managing inventories more efficiently based on historical trends and patient behavior to prevent stock-outs at retail and pharmacy locations.

Pharma companies have extensive security and reporting requirements, necessitating repeated and reliable collection and presentation of information. BI's analytical and reporting capabilities allow companies to gather and integrate information from across the enterprise and present it in easy-to-run and easy-to-understand reports. Pharmacos, in addition to being in compliance regarding drug testing and health certification, can also comply with often rigid insurance and government standards for payment and billing with BI.

Relevant key performance indicators are

- government drug standards,
- US FDA standards,
- clinical trials reporting,
- insurance billing compliance,
- government payment compliance,
- internal reporting compliance,
- clinical trials fast track,
- and drug compliance limits.

With intense pressure to speed products to market while keeping costs down, pharmaccos must monitor and effectively manage the clinical data process. BI's analytical capabilities enable companies to track the large amounts of information from clinical trials, identify the most efficient practices, and optimise resource allocation. By integrating data from multiple sources, BI also helps companies identify trends and anomalies and analyse risk during product development and launch.

Closely monitoring financial performance is essential for pharmacos as well to maintain costs and create effective budgets. BI integrates both financial and operational information, enabling companies to monitor and forecast financial performance and produce statutory financial reports from the same platform that enables clinical data and quality control analysis.

Moreover, to increase profit margins, pharmacos must monitor huge amounts of information from across the enterprise and turn it into useful, actionable knowledge. BI enables companies to track their supplier networks, inventory stocks, product quality, and production levels. In addition, BI's ability to simultaneously analyse information from multiple sources allows companies to monitor costs and operational efficiency across the enterprise, examine employee productivity, and allocate resources more effectively.

The enabling factor

BI enables pharmaceuticals companies to gain a complete view of the product development process to increase efficiency and optimise the cost/value relationship; monitor performance against key milestones such as vendor selection, site initiations, enrollment, drug shipments and availability; integrate plans and budgets to provide visibility into spending, predict clinical expenses and maximise financial capital leverage; aggregate customer, channel and product data for a single view of sales volume and to drive more targeted deployment; enable driver-based planning to make better decisions about resource allocations such as marketing programmes, advertising and samples; and improve contracting effectiveness through better planning and analysis of key performance indicators, historical performance and scenario analysis.

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