

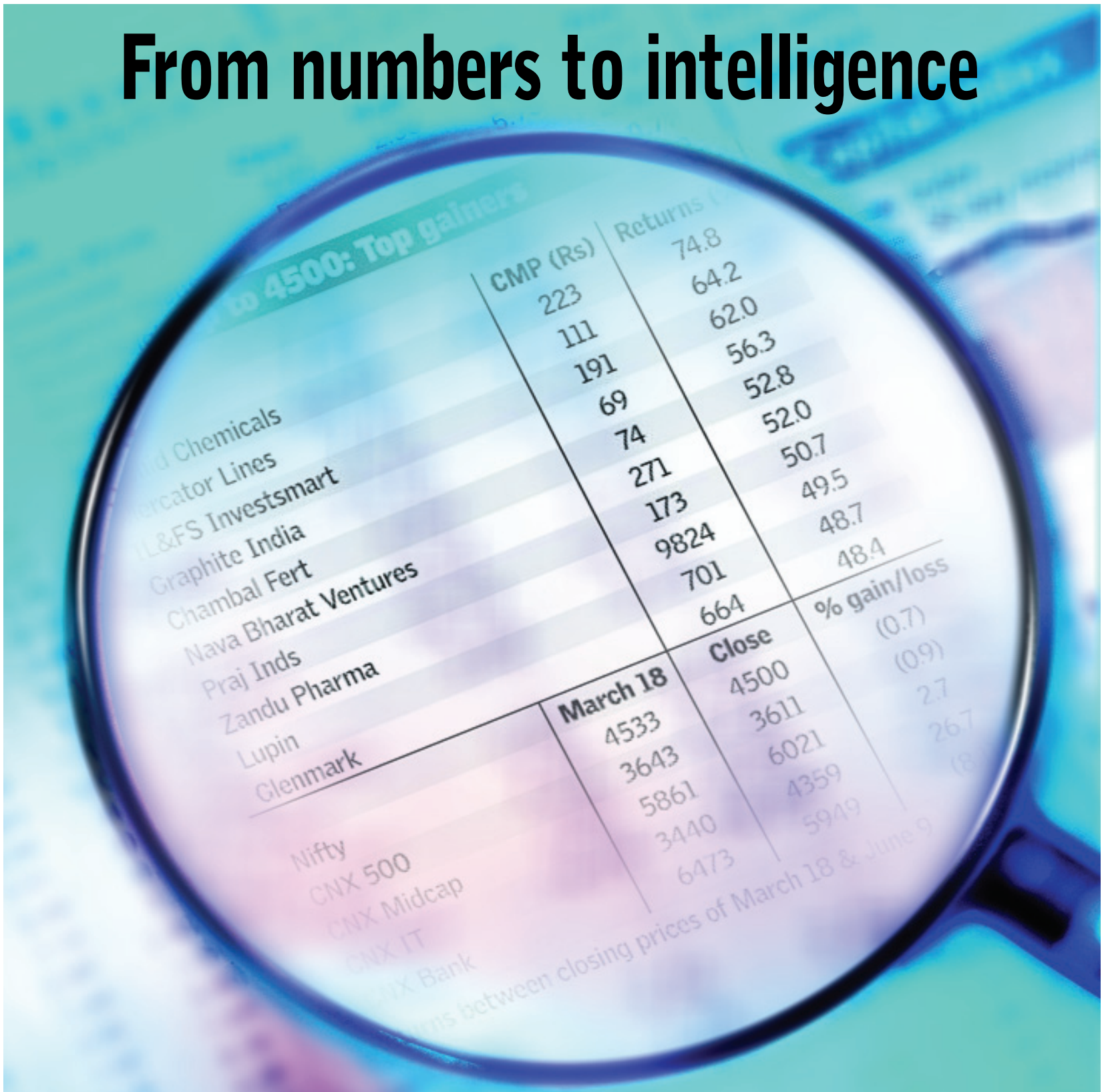


'We are targeting large, established and growing pharma companies'

There is an increased pressure on pharmaceutical companies from regulatory agencies to adhere to stringent deadlines in reporting adverse events (AEs). However, with the help of IT companies like Patni that offer AE reporting softwares, the task becomes easier. **Sanjiv Kapur**, Senior Vice President and Head, Patni BPO discusses more details in conversation with **Suja Nair**

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From numbers to intelligence



With the pace of innovation and discovery picking up, pharmaceutical companies are harnessing business intelligence tools to extract real-time insights and reduce time-to-market. **Viveka Roychowdhury** analyses

Data is a key asset in a knowledge driven sector like pharmaceuticals. In the past few years, there has been a virtual explosion of data, thanks to the use of the Internet as a means to access, transmit and share information. As George Varghese, General Manager, Enterprise Performance Management and Business Intelligence, Oracle India puts it, "The growth of knowledge has become exponential. The pace of innovation/discovery is picking up—medical knowledge is now doubling every eight years and we expect it to be doubling every two years by 2010—with the result that medical professionals will be struggling to an even greater degree in keeping up than they are today."

"Every area within this industry, from molecular research, drug development, Food And Drug Administration (FDA) approval, contract sales, eDetailing, formulary acceptance, to managed care, has been affected by the growth in the quantity and importance of information and the use of the Internet as a communications and information delivery mechanism," says Sanjay Mehta, Chief Executive Officer, MAIA Intelligence "The challenge is to be able to harness the power of the available technology and to upgrade and supplement your existing systems to create applications that are easy-to-use, provide access to the right information, and support decision-making processes."

In addition, pharma companies are feeling the pinch of price control, the lack of new molecules to make up for revenue loss due to patent expiries and increased regulatory scrutiny. "As market pressures demand increased innovation and shorter time-to-market product lifecycles, pharma companies are evaluating alternative business models, looking internally to find ways to remain competitive, build market share and maintain revenue



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George Varghese
General Manager, Enterprise Performance Management and Business Intelligence
 Oracle India

growth. In the pharma industry perhaps more than any other, time is money. Speeding a drug through development, trial and approval can mean millions in shareholder value," points out Mehta.

Once the product is out in the market, pharma companies need to chart out user trends and map out the strategies of competitor brands, as well as reach out to the physician community to communicate the benefits of their own brands. Thus, as Mehta says, "The answer to many of these issues lies in a company's ability to extract knowledge from raw data and to make it readily available where and when it is needed. That is what business intelligence (BI) does best. It helps pharma companies use information to improve their position in the market."

According to Shailesh Gadre, Managing Director, ORG IMS, BI provides business and operational consultancy technical services, which help 'unearth' new ideas and marketing potential by applying core competencies to pharma companies' innovation capabilities. "As pharma companies do not have a crystal ball in their hands, they often turn to BI consulting firms to help them make informed judgments," reasons Gadre.

Gartner Research, an information technology research and advisory firm defines BI as an umbrella term that includes the applications, infrastructure and tools, and best practices that enable access to and analysis of information to improve and optimise decisions and performance. A BI platform is further defined as a software platform that delivers most of the following capabilities under three overarching categories of functionality—integration, information delivery and analysis.

The main areas of the pharma value chain which generate loads of data are drug discovery laboratories (today, these are scattered across the globe), clinical trials (these are multi-centric trials, so again boundary less) and post marketing activities. "As a result," says Mehta, "a growing number of companies are turning towards enterprise-class BI solutions that provide a common underlying architecture and end-user interface and integrate data from different laboratories, both research and clinical."

There are two types of platform segments in the market—embedded and stand-alone, and as per Gartner's September 2007 report, growth of the embedded sub-segment was double that of stand-alone systems, at 49.6 percent in 2005-06, against a 25.7 percent growth in the other category.

Elaborating on the benefits of BI, Mehta says, "BI, used correctly, can provide critical data analysis to pharma management to support informed, strategic action. Data across functional departments can be integrated, providing context for business critical decisions. Pharma companies 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."

In these tough times, BI can also offer companies a chance to try to 'stretch the



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Sanjay Mehta
Chief Executive Officer
 MAIA Intelligence

buck' by making processes more efficient. "In order to increase process efficiency, it is necessary for companies to invest in a BI system that can deliver timely and reliable information, which can help in decision-making," points out Verghese. According to him, the three must-have features in a BI solution are that they should be complete, best-of-breed BI/data warehousing solutions, they should be 'hot pluggable' and lasty should be Service Oriented Architecture (SOA) ready to allow organisations to build the software environment of the future.

Coping with shifting market dynamics

Pharma companies are responding to shifting market dynamics by changing the rules of the game. Mehta points out that there is a dramatic change in sales channels and a rebalance of prescribing decision-making power. Pharma companies have to therefore re-think every aspect of the way they do business. Giving an insight into this process, Mehta says, "Under examination are allocation of assets and resources relating to new product development, the mix and priority of sales and marketing initiatives, and the underlying historical vertical structure of a pharma organisation around product or therapeutic-specific silos. This 'stovepipe orientation' has fostered the creation of multiple, disparate data sources and formats— 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."

Coming to the crux of the problem, Mehta points out, "There is a big gap between data and usable information. Information is the most underused asset in today's organisations. Unstructured way of reporting results in unforgiving

data errors with low satisfaction." Pharma companies are, therefore, flocking to BI providers to help them cope with the churn in the industry. Stressing the importance of rapid development and time to market for pharma and health care suppliers, Varghese says that in order to reduce time and increase effectiveness of all pre-production and distribution phase it is necessary to take the right decision based not only on historic information, but on real-time data as well.

Secondly, Varghese points out that new business models such as account-based selling and closed-loop marketing are being implemented throughout the pharma industry. "As these business models change, firms are establishing new metrics to measure business performance. These changes in business processes and metrics are having a significant impact on the supporting BI and data warehousing environments. A large amount of external data is available in the pharma industry such as drugs scans from pharmacies, longitudinal patient data and weekly prescription reporting updates from information management organisations (such as IMS) and others. These data are key to understanding patients and physicians behaviour, especially when introducing new drugs in a highly competitive market like pharma. In order to manage this evolving environment, BI systems need to be scalable and easy to adapt to new requirements and new user roles."

But merely having data at one's fingertips is half the battle. The key is, how do companies 'read' this data? As Mehta says, "The new availability of this patient centric data, combined with the need to address the decreased effectiveness of traditional promotions, has made pharma companies 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."

The third driver for the growth of pharma-specific BI solutions is the reality of outsourcing. As Big Pharma outsources more functions, they will need to manage

these phases as projects with a series of specific information requirements. For instance, while outsourcing pre-clinical and clinical trials to Contract Research Organisations (CROs), sponsors will need to take care of the following factors:

- Plan trials and monitor against performance milestones and events
- Assign resources based on skills and availability and re-

balance based on business requirements

- Budget and track costs
- Support multiple languages, currencies, and time zones
- Track studies by region, country
- Share clinical trial info in real-time via role-specific portals with multiple disconnected user groups who could be clinical research associates (CRA), investigators, regional trial

managers, global trial managers.

Besides these factors, Varghese comments that a great opportunity exists to leverage investments in BI solutions to support regulatory compliance programs.

Riding the BI wave

As Mehta points out, "The instantiation of BI processes within pharma companies is a

new, but rapidly growing industry trend. BI infrastructure is being deployed throughout the corporate enterprise, integrating and coordinating 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

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► systems, sales force automation tools and consumer direct marketing, can be examined across brands rather than within specific product areas. A BI system 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 pharmacy benefit managers (PBMs), pharmacies, payers and data providers.

At the end of the day, BI providers will have to demonstrate the effectiveness of such solutions to pharma Chief Information Officers (CIOs). Do the gains from implementing a BI system justify the costs? "As pharma executives look increasingly for ways to manage and maximise the return on investment (ROI) of their product portfolio, cross-functional data repositories with BI portals are becoming accepted as a means to provide real-time views of investments and paybacks, across brands, therapies and customer segments. Numerous pharma enterprises are looking for BI tools, to aid in the ROI optimisation of the portfolio," according to Mehta.

Business models and players

According to Gadre, there are four existing business models in the pharma BI sector. The first comprises market research companies that are basically involved in the generation of data. Service providers form the second group, which bridge the data gaps. The third group comprises tool providers, which help in mining and churning the data.

Describing their revenue model, Mehta says, "MAIA Intelligence is not a domain expert in all aspects of every sector of industry. We are a primarily a software license provider, not an implementation consultant. Therefore, we work together with partners that specialise in specific industrial sectors and disciplines. Partners who are able to support IKEY continually in improving its software, by providing detailed reports on experiences gained with previous implementations." For instance, MAIA Intelligence entered the pharma-specific BI market in India when it recently tied up with Soham Computers, an enterprise software development company for pharma organisations, which will add MAIA Intelligence's Business Intelligence Reporting and Analytics Software, IKEY, to its own pharma Enterprise Resource Planning (ERP) suite offering. The alliance will provide reports like trend analysis reports (for Quality Control (QC) and Quality Assurance (QA) departments), sales analysis reports (for marketing), purchase and consumption analysis (for stores), batch costing analysis (for the costing department), fund flow management (for the finance department), production planning and achievement (for production department) with IKEY.

Detailing the process, Mehta says, "Our partners are closely involved with most of our implementations. Their involvement starts with problem analysis and reporting definition, moving from analytical descriptions through to implementation, hardware choice, and at the end of the road, to system

management and hosting."

ORG IMS belongs to the fourth category, of management consultants, who use data and tools to come up with insights, which can then drive company strategy. Gadre feels that as the pharma industry is a knowledge driven industry, companies are not very open to work with companies which do not have pharma experience as they require domain expertise to drive their business. Moreover, he says, pharma companies look for consulting firms which have vast array of capabilities, knowledge, ranging from deep scientific knowledge—strategic, technical, commercial, analytical and organisational.

The global market for BI as per ORG IMS' assessment is \$3-3.5 billion, with the Indian market at \$45-50 million. According to Gadre, more than 60 percent of the BI business comes from the pharma industry. BI provides business and operational consultancy technical services, which help 'unearth' new ideas and marketing potential by applying core competencies to pharma companies' innovation capabilities. "Since pharma companies do not have crystal balls in their hands, they often turn to BI consulting firms to help them make informed judgments," reasons Gadre.

According to IDC's India Business Intelligence Market Program 2007, the business intelligence, data warehousing and associated software market was worth \$80 million in 2007 and is expected to touch \$265 million by 2012, growing at a compound aggregate growth rate (CAGR) of 27 percent from 2007-2012. The services market around business intelligence, data warehousing and associated software market stood at \$25 million in 2007 and is expected to touch \$450 million by 2012, growing at a CAGR of 78 percent from 2007-2012.

The NASSCOM Newslines, dated August 2008, tips India to be the fastest growing BI platforms market in Asia (including Japan), as it posted a growth of 35.6 percent in 2005-06. BI platforms revenues in India grew from \$12.1 million in 2005 to reach \$16.4 million in 2006, with all leading vendors (SAP, Microsoft, Business Objects) posting double-digit growth.

Pain points

The BI market continues to evolve. Mehta reminisces that earlier only the elite had access to BI. High cost and manageability issues restricted enterprise-wide BI roll-outs. Today BI is available for the masses for enterprise-wide empowerment. "Pharma companies can accommodate thousands of users with affordability without prohibitive licensing, implementation and training costs. BI can be applied as a utility in conjunction with corporate goals."

Quoting Gartner, Mehta says that only 30 percent of companies that have deployed BI consider their deployments 'very successful'—the vast majority is labelled 'somewhat successful'. One reason for this is low levels of user adoption—less than one-third of the potential users of BI tools are using them. Actual usage of BI tools is almost always much less than expected due,



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Shailesh Gadre
Managing Director
ORG IMS

largely to the difficulty in learning and using BI tools.

Gartner further points out that, "Business users must get the data, reports and analysis they need for their jobs from multiple sources and in multiple forms. However, the BI initiatives of most enterprises lack the maturity and depth of deployment needed to meet business demands."

The Indian BI market has a lot of potential for growth. As per a NASSCOM Product Study of 2008, India is well positioned to address this growing demand, drawing on the domain expertise available in home-grown BI product start-ups as well quality talent nurtured in the subsidiary centres of several top MNC players in the BI space. In fact, as Mehta points out, "MAIA's IKEY Business Intelligence, Reporting and Analytics Software is focused to meet strategic, tactical and operational data analysis and reporting needs of organisations. Most of the existing BI players like Business Objects, Cognos, Hyperion, QlikView and SAS etc. are primarily focused on strategic BI alone. MAIA has experienced that some organisations who have already invested in these MNC applications are keen to look at IKEY for their operational data analysis needs as well and making IKEY a standard for all their reporting needs. Therefore, IKEY co-exists with most of these strategic BI products."

Mehta further points out that the BI market has only penetrated 10 to 15 percent of the known user base, therefore, there is a vast opportunity for BI well beyond today's known markets.

There is no doubt that BI solutions for the pharma industry will evolve to keep pace with market dynamics. The point is, even as BI tools become cheaper and filter down to every level of the organisation, there might still be a gap between implementation and usage. BI providers will have to work at making these tools user friendly in order to actually increase usage. ■

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