CDW® PEOPLE WHO GET IT™

BETTER DATA THROUGH BI

Today's business intelligence tools help banks cut operational costs, boost profits and compete locally and globally.

Executive Summary

Today, unstructured data that could prove very useful to the banking industry is being created in vast quantities. However, an organizing force is necessary to render it useful. Enter business intelligence, which gathers and analyzes relevant banking industry data to gain new business insights.

BI is not a new concept in banking, but it is now more powerful, able to sift through the massive amounts of data created each day. To see maximum returns, banking industry leaders must find the right tools and create the right strategies for their use.

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BI Uses and Benefits

In the second it takes to say "data," people around the world generate about 10,000 tweets, make 1,805 Skype calls, upload five hours of YouTube video and send more than 2.4 million emails. Globally, we produce 2.5 exabytes (or 2.5 billion gigabytes) of data in a day, and IDC predicts we'll generate 40 zettabytes — that's 40 trillion gigabytes — of data by 2020.

Among this trove of data is information to help banks analyze and fine-tune business processes, create targeted marketing campaigns, efficiently compile reports, comply with regulatory requirements and, in turn, remain competitive and profitable. But how to get at it? This useful data doesn't generally come neatly packaged in databases.

That's where business intelligence comes in. BI employs tools to gather those ever-growing volumes of disparate data types from various sources, process them at record speeds and analyze and use that data to gain new business insights. The concept of BI has been around for decades, but it has been reborn, with new, more powerful tools to harness today's data explosion.

Banking leads most industries when it comes to Big Data analytics, according to a recent Strategy Analytics survey of 450 companies worldwide. Banks use BI to contain costs, boost profits and compete locally and globally. What follows are some of the areas in which BI can help banks.

DO-IT-YOURSELF BI

For years, IT departments drove BI solutions, culling insights from raw data and presenting them to business managers. However, the IT team often ended up with a bottleneck.

The IT group understood the systems, but the content area experts understood the business drivers. In order to get value from the BI solutions, the content area experts would have to explain the business needs to the data specialists, and the data specialists would have to explain the systems' capabilities to the content-area experts. Inevitably, nuances were lost in translation.

Another problem was time. IT departments are often stretched thin, and they have only so much time to analyze data and generate reports for end users. So business users would limit their data requests.

Self-service BI eliminates the IT bottleneck by simplifying BI tools so that end users of all skill levels can analyze data, customize dashboards and generate reports and presentations on their own. The quality of the data, queries and reports rise as well because business users know exactly what they need, and IT departments have more time to handle other critical tasks.

Risk management: The banking industry is built on risk, so every loan and investment needs to be evaluated. BI tools can give banks new insights into their systems, transactions, customers and environments to help them avoid certain risks. For instance, a bank could analyze regional weather data and match that with the age and integrity of the area's buildings to help determine whether to offer insurance in that market. Regional economic data and historic sales data can help determine when a housing market is poised to rebound and where to offer low-interest loans or invest in rebuilding. Banks can analyze the factors that cause borrowers to default on loans and craft new programs to circumvent those factors. BI can also make systems more transparent so that institutions can detect internal or external fraudulent activity and identify past patterns to prevent future fraud.

Marketing and sales automation: With the volumes of data available today, banks can gather previously unimaginable information about each of their customers. This gives them a better understanding of customers' needs and helps them to address these needs proactively. It also allows different departments within a bank, such as marketing, sales and IT, to work more cohesively as a single unit. For example, rather than pushing out products to all customers, banks can now merge BI and sales force automation tools to market products tailored to customers' current situations, whether they're building new homes, opening small businesses or starting families. In fact, financial services firms using BI reported a 7 percent improvement in cross-sell and up-sell revenues.

Customer profitability: BI also gives banks up-to-date information on their most profitable customers and the banking choices they make. Banks can use that information to retain high-value customers, market the right products to them and decide which products to invest in for the greatest return.

Performance analytics, budgeting and product innovation: Banks can use BI to measure business and employee performance and then create branch budgets and employee goals based on past achievements. In addition, they can target training and education of these employees for off-peak times and monitor progress toward goals in real time. Banks can also use performance data about products, features and services to create new offerings designed around current customer demand.

Historical analysis: Looking at past internal and external data, banks can plan for the future. BI can help them spot patterns, address issues going forward and set goals that improve upon historic metrics.

Executive dashboards: Using graphs, charts and animation, customizable interfaces help users visualize data. Managers can run queries and pull reports based on their needs. They can analyze the percentage of loans by type, monthly operating expenses or profit and loss by region.

Regulatory compliance: When asked to name their greatest business concern, 68 percent of bank executives cited regulatory compliance. Many of the Dodd–Frank Wall Street Reform and Consumer Protection Act rules took effect in 2014, and the Volcker Rule came into play in summer 2015. Business intelligence can help banks gather, organize and analyze data, compile reports and comply with requirements.

Today's BI Tools

In the past, BI solutions for banks took years to plan and deploy, and they did not adapt easily to changing business realities and technologies. Furthermore, because these tools were so complex, IT staff had to conduct analyses for business clients.

Today's BI tools are far more adaptable, with hardware, software, appliances and services that gather structured and unstructured data from disparate sources in various formats. The tools are simple enough that employees throughout the business can use them, regardless of IT skill level. They process far more data in real time, and they're available in user-friendly formats on a variety of devices. This provides all employees with anytime, anywhere access to BI insights. The value is clear: Nearly three-quarters of businesses in a 2014 Gartner survey reported recent or upcoming investments in Big Data initiatives.

Modern BI tools are capable of processing several types of analytics:

Content analytics formats and applies BI to unstructured content, including video, social media comments and emails, so it can be used with structured data to glean insights for banks.

Business analytics looks at past, present and future business models to determine what works and what can be changed for improved efficiency and profitability. For example, it can help predict increasing or decreasing product demand or determine where to open an additional branch.

BI ON THE GO

Business no longer takes place within a single office between the hours of 9 and 5. Thanks to mobile devices and the cloud, employees can remain productive when they are not at their desks.

Mobile BI makes business intelligence available through web browsers or mobile apps. Employees can use these tools to make business decisions — such as whether to issue loans or make investments — in real time, using their smartphones or tablets. Whether working from home, traveling for work or sitting in a client's office, mobile BI makes business intelligence instantly accessible.

Predictive analytics combines various types of analyses, using past and present data to anticipate the future. For instance, by analyzing various conditions that preceded past recessions, banks can move to protect their investments when these conditions occur again. Predictive analytics can also help gauge the creditworthiness of a potential borrower, and bankers can use that data in real time to make decisions about loans.

Cognitive analytics takes predictive analytics to another level by combining computer and human intelligence for greater insights. Using artificial intelligence, cognitive analytics can help systems learn a bank's processes and preferences so that the decisions it makes are customized for that individual institution.

Text analytics mines data from text sources such as emails, text messages, websites and other documents and transforms it into structured data that can be analyzed.

Social media analytics culls data from sites such as Twitter, Facebook and Instagram to help banks gauge what their customers think about them and their services. BI tools can also track the effectiveness of a bank's social media efforts — how many retweets or likes it received, for instance — compared with competitors.

The BI Stack

BI systems contain multiple tools that work together to glean intelligence from raw data. Today's solutions need the capacity to store, sort and validate the reams of internal and external data. But just as critically, they must have the power to process that data so that it makes sense to non—IT staff users. To meet these needs, solutions have three layers of tools that together make up what's known as the BI stack.

The data layer is the fuel of the solution. It has the tools to gather, integrate, clean, store and structure the data that drives the BI engine. A data warehouse collects information from various sources, including different systems within the company, unstructured data sources such as email, and data gathered from outside sources, such as business partners. Data integration merges and structures that disparate information, and data quality tools verify and clean the data. At the core of the data layer is master data — a central, accurate base of critical information about customers, products, employees, partners and other key elements that is accessed throughout the enterprise.

The analytics layer makes sense of the raw data gathered by the data layer. It uses business analytics to examine the effectiveness of business processes and predictive analytics to determine what's to come. The analytics layer derives the value of a BI solution by drawing insights from the data.

The presentation layer, which is the dashboard of the system, presents the gathered and analyzed data and generates reports, creates customized dashboards and sets up alerts to help users make sense of and act on data insights.

Important BI Tools

A growing number of BI offerings are available, but the market leaders are IBM, Microsoft, Oracle, SAP and HP. These companies offer an array of tools that handle the BI stack layers — some separately, some in a single product. The major BI vendors offer cloud-based and on-premises infrastructures to allow banks to scale solutions as needed, and they include self-service and mobile tools. Here is a look at their BI stacks.

IBM: Banking Data Warehouse is an industry-specific offering, with banking terminology and support for changing regulatory compliance and risk reporting requirements. IBM Cognos Business Intelligence analyzes the data and provides business performance dashboards and reports. IBM also offers Watson Analytics, a cloud-based predictive analytics and data visualization tool.

Microsoft: Users can craft a BI solution with SQL Server 2014, SharePoint and Excel, or allow Microsoft to manage the infrastructure with Power BI for Office 365, which gathers data from various sources, including Excel spreadsheets and cloud services.

Oracle: Business Intelligence Foundation Suite includes dashboards, enterprise reporting, scorecards, online analytical processing, predictive analytics and mobile BI. For extreme analytics, Oracle Exalytics In-Memory Machine combines hardware and software for BI, modeling, forecasting and planning applications.

SAP: The BusinessObjects BI Platform includes SAP Lumira, its data discovery and visualization tool, and reporting tools SAP Crystal Reports, BusinessObjects Web Intelligence and BusinessObjects Explorer. BusinessObjects Dashboards and BusinessObjects Design Studio allow users to create dashboards and design visualizations for mobile dashboards and web apps. BusinessObjects Mobile App gives users access to BI from smartphones and tablets.

HP: The HP Vertica Analytics SQL Platform was designed to handle analytical workloads via a distributed compressed columnar architecture. The solution provides high-speed query capabilities on a petabyte scale at a significantly lower cost than traditional data warehouse solutions. HP Big Data solutions provide insight into enterprise information to help financial institutions deal with shifting market trends and regulatory changes to meet compliance obligations, properly respond to investigations, mitigate risk and minimize operational costs.

CDW: A BI Partner That Gets IT

The rapid changes in data and BI markets can make it difficult to piece together the right BI stack. CDW can help. CDW Financial Services, which partners with 99 percent of the top U.S. banks and the major BI vendors, offers banks vendor-neutral knowledge and experience in assessing the value of their data, developing a BI strategy and choosing, installing and managing solutions. CDW's account managers, solution architects and engineers customize the right systems to help their clients gain new insights into their businesses and stay ahead of competitors.

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