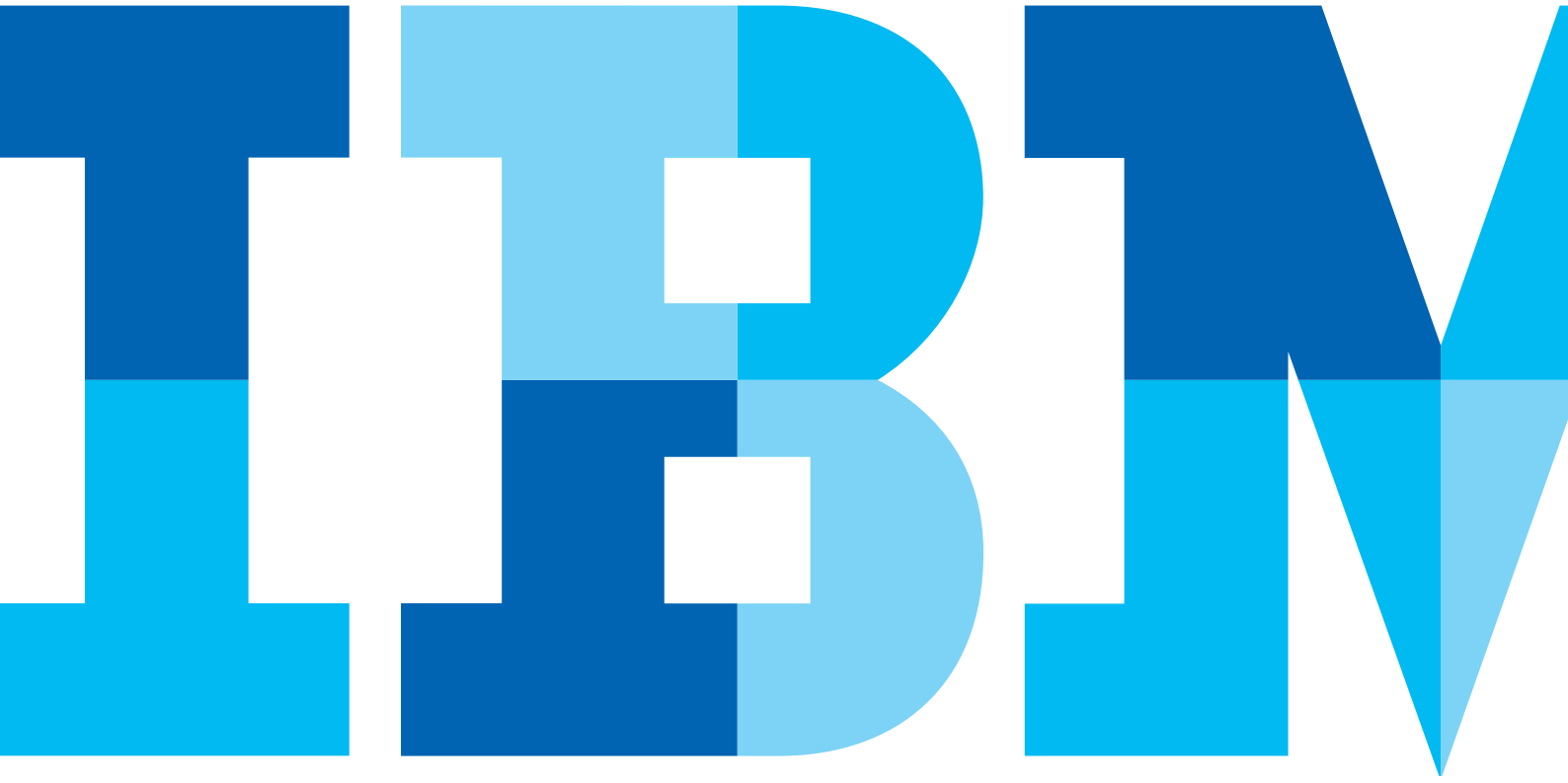
Business analytics for banking

Three ways to win



Banks need smarter systems to manage the flow of money around our planet. The road to profitability lies in better decision-making—by using IBM Business Analytics software to align all the data within an organization and help make sure it is accurate, timely, in context and available to all who need it.

With banking analytics your organization gains a complete and consistent view of all key profitability drivers so you can:

- Manage risk effectively
- Track and monitor sales, margins and operational performance
- Analyze results and identify and predict trends in channels, regions, products, demographics and customer behavior
- Dynamically adjust plans to achieve profitable growth
- Help meet regulatory demands

Overview

Thanks to banking technology, few transactions actually use cash. In fact, hard currency represents only 11% of the money supply in the U.S. The rest of our "money" flows digitally from a salary to a bank to a retailer, and then through the retailer's supply chain, to be deposited in another business' account... to start the journey over again.

That means our money has been transformed into zeros and ones. It's intangible, invisible. It's information. Which is central both to the problem we face—and to its solution. Data pours in from multiple systems, divisions and regions. Banks are constantly challenged to provide solutions that enable productivity and agility in the face of market and consumer demands. Manual processes, inefficiencies and lack of accountability add to the mix.

In addition, increasingly interconnected economies, enterprises, societies and governments have given rise to vast new opportunities. But greater connectivity has also created strong – and too often unknown – interdependencies. The new economic environment is substantially more volatile, much more uncertain, and increasingly complex. The vast majority of CEOs anticipate even greater complexity in the future, and more than half doubt their ability to manage it.

To make money smarter, we can start with smarter banking technology. By applying unprecedented computing power to perform advanced analytics we can turn this numerical ocean of data into actionable insight and intelligence.

This white paper will explore the practical applications of business analytics for banks. It will highlight how analytics can help you increase customer profitability and satisfaction, manage risk and be more operationally efficient. Finally the paper will examine how several smart companies are using IBM Business Analytics software to gain rapid insight, real ROI and the quick wins they need to stay competitive.

Business analytics defined

Business analytics can hold the key to optimized performance, informed decisions, actionable insights and trusted information. By bringing together all relevant information in an organization, companies can answer fundamental questions such as *What is happening?*, *Why is it happening?*, *What is likely to happen in the future?*, *and How should we plan for that future?*

IBM Business Analytics software helps your organization rise to the challenge with better business insight, planning and performance. It does this by unlocking data captured in operational and financial systems and transforming it into useful, relevant information. You understand what's behind critical issues, trends and opportunities. You gain an accurate forward-looking view of the business and can plan accordingly. And everyone collaborates to make strategically aligned decisions across the enterprise.

The core components of business analytics include:

- **Business Intelligence:** Query, reporting, analysis, scorecards and dashboards that enable users across the organization to easily find, analyze and share the information they need to improve decision-making.
- **Analytic Applications:** Applications that package business analytics capabilities, data models, process workflows and reports that address a particular domain or business problem such as customer, workforce, supply chain or financial performance management.
- **Financial Performance and Strategy Management:** Budgeting and planning, financial consolidation, scorecarding and strategy management, financial analytics and related reporting capabilities that help simplify, structure and automate dynamic and sustainable financial performance and strategy management practices.
- **Advanced Analytics:** Data mining, predictive modeling, 'what if' simulation, statistics and text analytics that identify meaningful patterns and correlations in data sets to predict future events and assess the attractiveness of various courses of action.

Three ways to win

Banks have always been high on the maturity curve for employing business analytics to solve business problems. While the implementations are as individual as the companies themselves, three common areas are always of particular focus: risk management, customer analytics and increasing operational efficiency.

Managing risk

Risk and finance executives are under increasing pressure from governments and business units to improve the quality and speed of risk reporting, insight and decision-making. They need to reduce risk exposures and losses, while anticipating the next big area of concern and opportunity.

Financial services institutions are exposed to more risk than ever. Undetected fraudulent activity, as well as unnecessary credit exposure, puts them at great financial and legal risk. Yet in a 2009 study by IBM only 21 percent of respondents believed that their firms are proficient at managing systemic risk, and only 18 percent that their firms are proficient at managing the risks associated with new products or markets, even though 52 percent and 43 percent, respectively, place a high premium on such risk.

Banks rarely have a shortage of risk management expertise, technology and data. The issue lies in consolidating, understanding and communicating that data, within the company and externally, to regulators and to the market. Banks typically have large, multiple data warehouses for risk and compliance. They also have complex and inflexible risk modeling methodologies and no effective way to consolidate and make sense of the information.

In order to fulfill this mandate, they need to evolve past lackluster solutions that attempt to address a single risk class. They require a platform that synthesizes disparate risk and finance data into an integrated, enterprise wide view of risk across divisions, geographies and risk classes.

IBM software allows your bank to answer key risk questions such as:

- What are the delinquency levels in the portfolio?
- Which products, geographies, business units or vintages are performing well and which are performing poorly?
- How much of the portfolio is rolling from one delinquency bucket to the next?
- What are credit scores across the portfolio?
- How many new loans are being originated, and with what characteristics?
- Are charge-offs rising or falling, and is one product type or geography experiencing more charge-offs than another?
- Are receivables, delinquencies and charge-offs in line with forecasts for these metrics?
- How is the portfolio performing on such metrics as probability of default, loss given default and exposure at default?

With predictive analytics banks can also maximize customer value and minimize risk in every interaction through every channel. Predictive analytics makes it possible to leverage the distinct multichannel nature of the financial services business—the wealth of data available and numerous points of interaction. With this information in hand, banks can answer questions like who is likely to default on a loan, which customers pose high or low risks, which customers are the most lucrative to target resources and marketing spend.

Given the complexity of risk management, banks require additional capabilities to protect the organization from excessive risk and maintain profitability. With IBM Business Analytics you can:

- Monitor broker activities for compliance and fraud.
- Get a full picture of key metrics associated with Basel III including probability of default, exposure at default, loss given default, expected loss and capital ratios.
- Get reports, dashboards and analytics focused on equity, interest rate, currency and commodity risk.
- Discover and report unauthorized IPO allocations.
- Assure that the trade being settled is the trade that was made.
- Minimize penalties by ensuring that all transactions are settled in the required timeframe.
- View detailed information on a host of reputation metrics such as customer attrition and satisfaction, negative press mentions, investor confidence and spend on brand, fines, lawsuits and more.
- Aggregate trading positions and desk-level risk management systems to provide a single holistic view of the firm's risk profile.
- Integrate continuous market and trade activity information to analyze risk of exposure in real time.
- Improve hedge positions by linking continuous rate lock information with portfolio positions for funds management and investment decisions.
- Receive timely notification of risk events, such as downgrades or crossing limits thresholds.

Analytics in action

A major European bank has deployed IBM SPSS predictive analytics to construct an innovative early warning system that detects potential failures among its business customers. It also models the relationships and economic dependencies among them. This allows the bank to predict the impact on the bank (and its other customers) of a business failure by a major client, taking into account the "domino effect" in which one failure may trigger others. It provides an effective safety net by allowing the bank to calculate the maximum risk from a major business failure.

All these capabilities mean that banks can take the kind of proactive actions that improve outcomes—from understanding and using data more effectively to making decisions at the point of impact—when it matters most.

We can see intelligence making an impact with the emergence of smart banks. For instance, the Operational Riskdata eXchange Association, a consortium of 52 leading financial institutions, uses blinded data to improve statistical modeling, more accurately quantify risk exposure and address regulatory compliance needs.

Deeper customer care and insight

Ask most financial services executives about their key strategies for growth, and the same answers tend to pop up: increase wallet share, improve customer satisfaction and loyalty, serve mass market customers more cost-effectively and know the customer's needs so the institution can offer the right product at the right time, through the right channel. This is amidst a customer base that is more savvy and price sensitive than ever before, and far less loyal.

Creating a more customer-centric strategy is predicated on having customer segment or individual customer data available, using the data to understand the behaviors and profitability of customers or groups of customers, and then to create strategies and plans that maximize the institution's success.

With IBM Business Analytics software banks can consolidate customer data, understand customer segments and individual customers, and set and monitor specific targets that improve segment profitability:

- Customer segment reporting, analysis, dashboards and scorecards let managers see at a glance how individual customers and customer segments are performing across measures such as customer profitability, customer lifetime value, risk grade and products most likely to be purchased next. Banks can also identify the customers and customer segments to target for product or service initiatives, based on the performance of past initiatives.
- Predictive analytics lets you get deeper understanding into what individual customers will want and when. This helps banks set strategies to acquire new customers, reduce churn and retain the best customers, up-sell and cross-sell more products and services, segment customers more accurately and increase the lifetime value of each customer.
- Initiative planning lets you perform what-if analysis and plan marketing initiatives by product within customer segments.
- Customer segment P&L calculation and forecasting is created dynamically from revenue, balance and cost information to provide customer segment profitability information.
- Activity-based costing and management is based on accurate data through integration with Acorn Systems' Profit Analyzer CI, another costing provider, or the bank's existing systems.

Analytics in action: FIDUCIA IT AG

FIDUCIA is the largest comprehensive outsourcing partner in the cooperative banking sector, serving more than 850 banks and 38 million banking customers in Germany. With IBM Cognos software at the core of its business intelligence competency centre, FIDUCIA can bring new answers and insights to its banking customers.

Cognos fits perfectly with FIDUCIA's streamlined ASP model—letting FIDUCIA offer BI capabilities to its hundreds of banking customers in a way that is consistent with its vision of providing comprehensive, value added services in a simple, secure, and scalable manner. Here are some of the key benefits that FIDUCIA executives attribute to Cognos:

- Expanded self-service offerings—One key to FIDUCIA's success is the ability to empower its customers to use new BI solutions and capabilities at the desktop level—but without the complexity and expense of installing and upgrading desktop software.
- New revenues—Easy to deploy and use, IBM Cognos BI solutions expand FIDUCIA's ASP model and enable it to serve its customers with cost effective, value-added applications and services—enhancing revenues and building the customer base.
- Better information and more transparency—Direct, fast, flexible, and integrated access to relevant information lets FIDUCIA help its customers achieve their business and profit targets. For example, by identifying market potential, they can ensure that they are maximizing it.

With IBM software banks can tap into vast amounts of customer data, create real intelligence on behavior, revenue streams and profitability by customer or groups. They can empower segment managers to report on and analyze profitability down to customer or household, to create regional and product P&Ls within a segment Banks can also more effectively plan sales and marketing initiatives and monitor the success of plans and initiatives to feed information gained back into the process, creating a closed-loop cycle for continual performance improvement.

Operational efficiency

Banks must respond to economic challenges by shoring up internal operations to ensure that the entire organization is running at peak efficiency. Making this determination, however, requires an in-depth understanding of how well the company is operating relative to its historical trends, its peers and the overall market. To gain this insight, your bank needs the ability to connect operational details to business drivers.

Scorecarding for example, is a terrific application for finding new efficiencies. With scorecards companies can distil information into a small number of metrics and targets to:

- **Deliver at-a-glance information—**Stop sifting through a stack of reports to find what's right…or wrong. Scorecards show you immediately how the company performs against targets you set.
- **Communicate strategy and targets—**Metrics show everyone what's important, what's expected and how you're doing.
- **Increase accountability—**Let people see the strategy and understand their part in making the strategy succeed, and give them metrics to measure their success.
- **Connect departments—**Scorecard metrics, like your strategy, are interdependent. See how your red metric affects others.

Analytics in action: Bank Austria AG

Bank Austria AG is the clear number one in the Austrian banking industry. With a balance sheet total of around €145 billion, Bank Austria is about double the size of the next largest bank. Bank Austria needed a system with an independent and flexible response to be able to produce efficient ad-hoc reporting whenever it was required.

With Cognos 8 BI, reporting to the parent company is now uniform, and can be achieved much more quickly and at a lower cost than previously. This speed and flexibility are also apparent in the bank's ad hoc reporting, particularly important in the current economic climate.

With all controlling content consolidated to a single platform, data discrepancies are a problem of the past – the bank can now have total confidence in its data.

Best practice budgeting, plans, forecasts and financial reporting are also a cornerstone of better performance and efficiency. Becoming a leaner organization means swapping out inefficient processes in favor of new systems capable of driving ongoing performance. For instance, rather than setting targets at specific numbers, your decision-makers may want to begin tying performance targets to events, trends and risk factors. Rather than engaging in planning on an annual basis, they might consider adopting shorter planning cycles focused on the achievement of specific tactics and initiatives.

With IBM Business Analytics software banks can:

- Establish corporate targets and develop integrated, functional, financial and operational plans.
- Conduct both top-down and bottom-up branch planning to ensure alignment with strategic objectives.
- Manage profitability planning, analysis and reporting by product and customer segment, permitting an extremely high level of precision.
- Provide activity-based drivers and rates used for planning and reporting, allowing unsurpassed accuracy, consistency and confidence.
- Integrate with the bank's existing systems or external providers to provide activity-based costing and management.

Why IBM?

With over 40 years of experience in analytics and a proven, industry-based best practice approach, only IBM offers:

- A complete range of integrated capabilities including reporting, analysis, dashboarding, scorecarding, content analytics, 'what-if' scenario modeling, predictive analytics and planning, budgeting and forecasting.
- An open enterprise-class platform to cost-effectively deliver complete, consistent and timely information (can be historical, real-time and predictive) to decision-makers across the organization.
- Packaged reporting and analyses based on proven best practices, with a comprehensive portfolio that covers workforce, customer, finance and supply chain, and that can be easily adapted for specific industries.
- The ability to leverage IBM's full technology stack – including workload-optimized systems and leading information management capabilities – for flexible implementation and delivery of trusted information.
- Solutions that scale well from the desktop to the enterprise, including the only complete, integrated solution purpose-built for midsize organizations.

In addition to these capabilities, only IBM offers a suite of Performance Blueprints—free quick start models that speed software deployments and drive faster return on investment. For banking these areas include relationship pricing, risk-adjusted profitability, customer segmentation, branch performance, IT cost transparency and more.

IBM Business Analytics software is a proven solution—one that has been successfully implemented at thousands of banks worldwide, including four of the top five banks in the world, and all of the top five banks in North America and Europe. With unmatched products, best practices and deep industry experience IBM professionals know how to help banks achieve maximum value and ROI.

For more information on business analytics software for banking please visit **ibm.com**/analytics/banking

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision-makers can trust to improve business performance. A comprehensive portfolio of business intelligence, advanced analytics, financial performance and strategy management and analytic applications gives you clear, immediate and actionable insights into current performance and the ability to predict future outcomes.

Combined with rich industry solutions, proven practices and professional services, organizations of every size can drive the highest IT productivity and deliver better results.

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