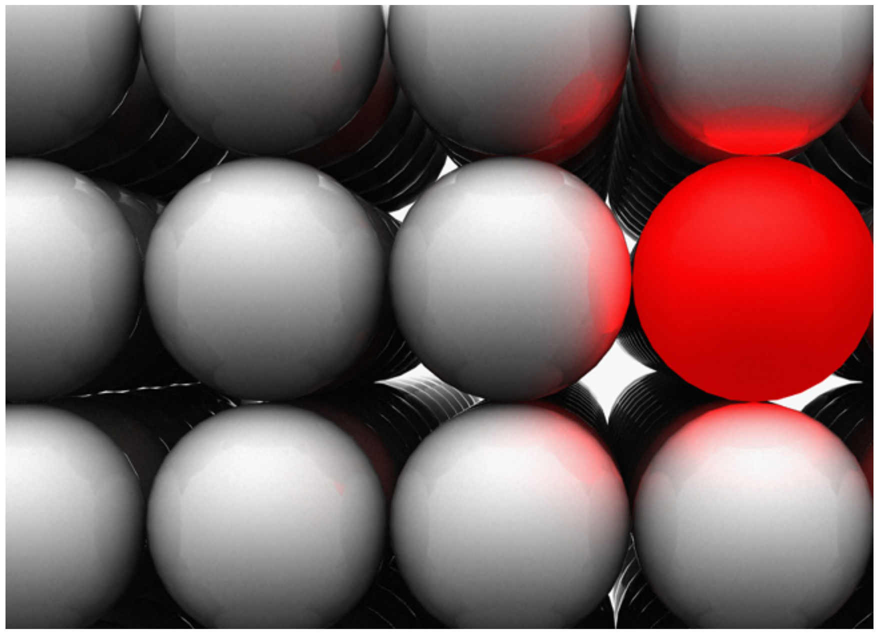
Solution Brief

Business Intelligence and Banking: A Catalyst for Change in a Competitive Market

A Q&A with Datamonitor Analyst Jaroslaw Knapik and IBM Cognos Associate Vice President Laurence Trigwell

Growth of data volumes in disparate sources, ongoing regulatory changes, and growing technology capabilities are driving financial services organizations to increase investment in business intelligence technologies. Banks must align intelligent technology with data management techniques in order to improve their decision-making processes. This is the key takeaway in a recent Datamonitor report entitled *Business Intelligence in Retail Banking* written by analyst Jaroslaw Knapik.



Jaroslaw Knapik is an Analyst on the Financial Services Technology team, covering global banking technology. Jaroslaw analyzes business trends, technology strategies, and best practices, with a primary focus on the retail banking market. Jaroslaw has recently published *Business Intelligence in Retail Banking*, a report that provides in-depth analysis of the state of affairs in the global retail banking industry with regard to the thriving business intelligence area, as well as Building a Technology Platform for the “Ultimate Offering”, highlighting technology trends among financial institutions serving affluent clients. He is currently working on Benchmarking IT Spend in Banking, a project that compares IT expenditure among banking peers, and a report on fraud detection and anti-money laundering in retail banking.

Prior to joining Datamonitor, Jaroslaw worked as research and business development manger at JR Electronics, Winspec Manufacturing and MA Laboratories, where he was in charge of conducting research and business development in Central Europe and North America, introducing US-based companies to European semiconductor markets and developing distribution channels for software and hardware products and services.

Laurence Trigwell is Worldwide Financial Services Executive at IBM. He is responsible for the IBM Cognos financial services go-to-market strategy and executes that strategy in EMEA and Asia Pacific. Accordingly Laurence works with

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customers, partners, and thought leaders across the region to understand their performance challenges, objectives, and perspectives and to develop solutions to meet those challenges. Here they join Kelsey Howarth, Senior Writer at IBM, to discuss the challenges that banks face in a new global market, the market maturity for business intelligence (BI) in banks, the technology requirements and why IBM Cognos software is the solution of choice for all of the top 10 U.S. banks.

KH: Jaroslaw, in your report *Business Intelligence in Retail Banking*, you state that banks are moving toward a pervasive use of BI technologies. What are the market catalysts for this increased adoption?

JK: There is indeed a trend toward pervasive use of BI technologies. The main catalysts for this are regulatory compliance, hand in hand with improved management insight and control. Another key aspect is the need for optimized sales and service effectiveness.

A plethora of existing and forthcoming regulations requires banks to have better – and faster – insight into what's happening in their businesses. In addition, the combination of data privacy, anti-money laundering, risk management and new reporting requirements is driving banks to tighten their internal procedures and improve the IT systems they have in place to ensure data integrity and provide improved reporting capabilities.

On the service and sales side, it is essential that banks know as much as possible about their existing clients and maximize the potential of selling to a new customer. This means providing their front-line staff with the right tools and insights quickly and easily. The right business intelligence capabilities have a key role in helping banks achieve this.

KH: In terms of BI usage in banks, you feel that banks are moving toward analytical, data-driven customer service, but aren't there yet. What stage are visionaries in BI maturity and implementation at? Where is the average bank on the road to customer understanding?

JK: In order to be able to provide improved customer service, a bank needs sufficient visibility into customers on an on demand and real-time basis. This necessitates customer data integration to provide coherent data for accurate and full customer analysis and reporting. The lack of consolidated customer information can create lapses in service quality or missed and repeated information, resulting in dissatisfied customers and inefficient processes.

Banks are developing beyond branch renewal activities by beginning to offer data-driven customer service. While the majority of retail banks are currently at the "active" stage of a customer service relationship, characterized by a high degree of customer and bank interactions, they are progressing toward a "predictive" bank-to-customer framework. This lets a bank anticipate the needs of the customer and theoretically provide superior customer service and sales advice. This is where the visionaries are.

KH: You mention that tackling compliance management is a key area of usage for banks. What functionalities of business intelligence do you see as being really critical for better compliance management?

JK: Given the recent wave of regulations, banks need to focus their attention on changes related to corporate governance, accountability, and disclosure and risk management. One of the main consequences is that every bank needs to retain accurate customer records and full transaction details that can be reviewed on demand, together with copies of any associated communications. Moreover, financial services institutions have to document all the procedures and guidelines, and maintain evidence to demonstrate that these have been adhered to.

The audit process is much less complicated and cost-effective to maintain if the entire process is managed as an integral part of the system. Regulators expect banks to capture, validate, maintain and use the right data about their customers, and control access to it. This enables institutions to give appropriate financial advice, respond promptly, and authenticate a customer's identity prior to every single transaction.

Another example is risk management. Effective risk management practices require bankers to track their transactional activity in order to maintain a complete and up-to-date picture of their financial assets. This includes deficiencies in information systems and business processes, such as back-office failure, faulty transaction execution, and incorrect data entry. A number of banking institutions have decided to adopt the higher of the standards that are recommended by the Basel II framework in order to maintain a better reputation in the marketplace. Such companies are, in fact, looking toward a longer-term view of risk management, brought out by the recent crisis in the sub-prime lending market segment.

KH: Your report also states that most banks aren't equipping staff to understand the customer relationship and predict future buying behavior. What role do you see BI playing in this pursuit?

JK: Accurate customer understanding requires in-depth customer insight, which can be enabled through detailed segmentation and analysis, and cleansing, linking and grouping of customer data in more detail. Customer data analysis is necessary to provide information to product development business units, maximize direct marketing efforts, and analyze customer risk. Moreover, in order to increase sales effectiveness, banks need to segment customers on the basis of "propensity-to-buy" models. Such an approach allows greater customer understanding that can be used to set up a variety of approaches to sales targets. This can include areas such as pre-approval of lending products or approaching expiration of fixed-term lending and savings products. Similar information is required in order to coordinate direct mail through both electronic channels and regular mail.

Sales teams are constantly forced to expand banking relationships to new or existing customers. One of the key success factors in a commoditized industry is time-to-market. Front-line staff need to be able to react to, adjust, and satisfy client demands as soon as they arise. Customers now require faster and more accurate responses to their queries. As a result, a banking sales force needs to be able to offer a quicker decision-making process than its competition.

At the same time, the response needs to be based on the right information that evaluates customer risk profile, matches offerings with demand, allows cross- and up-selling, analyzes referrals or relationships among existing clients, and finally closes the sale. As such, the combination of access to the right information delivered in real or near time becomes a must-have requirement for banks that compete in the current business environment.

KH: In your report *Business Intelligence in Retail Banking*, you state that strong management necessitates deep insight of banking operations. You also outline three key imperatives that enhance management strengths. Can you share those with us?

JK: The first imperative is business agility. Business managers need to identify, monitor, and analyze the main pain points of the business process, in a timely manner, in order to make the required changes as quickly as possible. The second is access to precise information. A stronger management team requires consistent, accurate, reliable, and relevant information to be made available at the right time and place, so that operational decisions are made on a sound basis.

And finally, there is the need for closer control of business relationships. The analysis of existing internal data and information needs to be extended over traditional boundaries to give banks a greater understanding of the relationships they have with customers, suppliers, and partners.

KH: Laurence, how do IBM Cognos solutions help address these new banking imperatives and pain points?

LT: There were some great examples that Datamonitor referred to that I think are worth drawing out. At IBM we view a performance management agenda in banking as having two central pillars. One pillar is the increased regulatory environment that everyone in financial services operates within, specifically in terms of government, risk, and compliance. This environment includes regulatory components like Basel II, MiFID, along with "Know Your Customer" and anti-money laundering initiatives. Senior managers and shareholders must demonstrate greater governance and control in order to provide confidence to customers.

The second pillar is helping banks meet their shareholder goals of improved revenue margin, increased growth, and deeper customer relationships. They need to accomplish this while being operationally more efficient in a highly competitive market. IBM Cognos solutions, through its business intelligence technology, helps them understand both their current set of performance goals against targets, and a detailed understanding of past performance.

If a bank understands who its most important customer segments are–be it in terms of profitability or potential–and really understands the characteristics and historical buying patterns of that group, it can effectively drive improved value from them. It's good for customer retention, too. If customers are appropriately told at the right time in the right way about the right product, they feel better serviced by the bank, rather than bothered by inappropriate marketing campaigns or sales calls.

KH: What are some of the key trends are you seeing with banking customers?

LT: One of the key trends–the issue that won't go away–is branch renewal. Branch networks are notoriously expensive. Historically, they have been transactional centers and service centers. Now they are under massive pressure to increase revenue, target more effectively, and provide data access amidst a complex IT environment. Innovative banks are using BI to make this pain go away–and creating customer segmentations that put the right product in front of the right customer at the right time.

We are also seeing an increased level of alignment around risk, capital, finance, and line-of-business targets. This last group is a really powerful addition, because it means that efficient use of capital and efficient identification of risk isn't purely a historic view, but part of a forward-looking planning and modeling process. Banks are realizing that in order to get these groups working together, they need to break down the silos and share an appropriate view of risk insight with a broader group of people across the bank.

KH: Can you share some examples of customers who are making smarter decisions with business intelligence and performance management?

LT: One of the great examples is one the largest banks in the world, which is using IBM Cognos solutions to deliver daily performance reports throughout its branch network. Prior to IBM Cognos solutions, the information used to be delivered three weeks after month end, making some information up to seven weeks old. This was a huge concern. With IBM Cognos solutions, it now happens in seven seconds.

The bank also has deep insight into the compensation plans for branch staff and full branch activity against goals. It's delivering huge benefits, not only in terms of cost efficiencies of producing that information, but also in terms of the value of timely consistent insight to serve SME business and customers better. This insight is also shared throughout the branch hierarchy at a metropolitan, regional, national, and multinational perspective.

KH: Jaroslaw, when banks decide to implement performance management and BI solutions, they often have the buy-versus-build debate. Can you tell us the benefits of both best-of-breed and best-of-suite applications?

JK: The main arguments for best-of-breed are always customization and optimal functionality. Top-tier banking institutions have very sophisticated needs due to differentiation strategies or unique existing technology assets. In such a scenario, clients usually prefer to start from scratch, and will work with selected vendors or consultants to design and deliver the desired solution. Therefore, vendor relationship management skills are becoming critical in order to succeed in building the expected business intelligence functionality.

Consultants typically bring wide-ranging experience in a number of technology tools and technologies required for BI projects. Additionally, they have the knowledge that is required to bring in the technology from high-profile vendors, as quite often specific best-of-breed functionality from ISVs is required by the bank. In a situation where a bank already has BI elements or tools in place, these parts may need to be reused within the context of the BI solution or given an SOA design pattern. Therefore, customization-oriented building methods tend to be better suited, especially given the level of standards support that is widespread among the leading vendors.

On the other side, driven by regulatory pressures, a lack of internal IT skills and the growing complexity of technology, the interest in buying off-the-shelf solutions has significantly increased in recent years, especially within lower and mid-tier banking institutions. The key advantage of off-the-shelf solutions is that packaged applications contain pre-configured templates, queries, reports, metrics, and data definitions specific to a particular operation or functional area within a business. Typically, packaged analytics offer around 70-80 percent of the required BI functionality. Therefore, a quicker deployment time becomes a key selling point to packaged solutions.

A further driver is the regulatory environment and the banks' deadlines for meeting new standards. Nonetheless, few out-of- the-box solutions match every analytic requirement, but they are certainly a great start. Customization is still unavoidable, either in terms of getting the application working or subsequently extending it to address highly specific requirements. Many vendors have a good understanding of the market and now offer their packaged applications as part of their overall portfolio. Within medium and larger institutions, it becomes a starting point and then evolves into a hybrid build before becoming a fully customized solution.

KH: In *Business Intelligence in Retail Banking*, you write that banks must create an effective end-to-end BI platform. In your mind, what capabilities must a BI platform include in order for it to be truly comprehensive?

JK: An ideal end-to-end business intelligence platform is a solution that enables data access, data management and the presentation of information services. The platform should ensure that all core tools and services are included in the vendor's product suite. The solution needs to interact with all business elements, supporting technologies and BI infrastructure. Functionally, it has to be able to read data from disparate sources and make the data available to core BI data management facilities, such as analytics, performance metrics, query and reporting, and other tools that turn data into information. At the end, the solution needs to deliver information to a bank's information customers. The business intelligence platform evolves to a point where it has the role of controlling and unifying data collection and information services. In order to sell, vendors need to convince banks that their individual solutions can be used to deliver an extensive range of enterprise data capture, data management and information delivery services. Moreover, the functionality needs to be deliverable with centralized management capabilities.

KH: You also mention that any BI system must have closed-loop BI functionality, not just data exchange. What do you feel is the appropriate cycle or steps for closed-loop decision-making?

JK: The communication between BI components is still evolving, although data foundations need to be reliable enough in order to enable the expected connectivity, and consequently the right BI functionality. Therefore, metadata management is still one of the key issues that need to be resolved. A lack of synchronization in importing and exporting one another's database schemas makes it extremely difficult to create a transparent, end-to-end, information supply chain.

In addition, data cleansing needs to be automated and manual intervention must no longer exist. A unified metadata repository that is available to every element within the overall enterprise architecture is a critical foundation for further development of business intelligence solutions. Standardization remains imperative with banks increasingly using best-of- breed components from ISVs and other tools developed by SIs or independent consultants. The combination of the common warehouse metamodel, which helps to ensure interoperability between applications, and the extensible markup language that creates adaptors to make the necessary links, decreases incompatibility issues.

A real-time platform requires closed-loop business intelligence functionality that is more advanced than just an exchange of data between various systems. It requires bi-directional communication of BI solutions within the entire IT infrastructure and core operational systems. As such, the data taken from original data sources needs to be analyzed and fed back into other applications, in the form of alerts, requests for action, commands and automated demands for systems activity.

Hence, closing the loop remains the key imperative for technology providers to deliver completely integrated BI solutions.

KH: Laurence, from a technology standpoint how does IBM Cognos solutions differentiate itself in terms of offering an end-to-end platform?

LT: The first is that IBM Cognos solutions have been dedicated to business intelligence throughout its lifetime and therefore has a strong heritage in BI. We have consistently led the market. This leadership actually led us to completely re-architect our product six years ago to create an enterprise business intelligence solution with all capabilities–reporting, dashboards, scorecards, analysis and more in a single platform.

That piece of visionary thinking and investment really started to bear fruit when we launched IBM Cognos 8 BI–all these capabilities on a truly open platform. That single product and Web-enabled, zero-footprint environment is critically important, because it means BI can be deployed easily to tens of thousands in a secure way, and without management overhead. I think many BI vendors have remained wedded to a particular product category or platform, but only IBM Cognos solutions had the foresight to go back and re-architect itself from the ground up and make its solution truly enterprise-ready.

The second thing is that IBM Cognos solutions is a performance management visionary. When analysts were first talking about performance management as a category, IBM Cognos solutions was making strategic investments to supplement its own technology know-how, acquiring a planning and consolidation capability and integrating those product capabilities into a BI solution stack.

Equally important is the recent IBM acquisition of Cognos. Jaroslaw spoke earlier about the need to build BI infrastructures that are robust, enterprise-ready, and scalable. Banking institutions are some of the largest and most complex organizations in the world. They are very multinational and have a legacy of information sources. IBM has that heritage of being able to help them aggregate, clean, and manage metadata. IBM knows how to manage hard and soft business process metrics and create that BI infrastructure that helps banks exploit investment in its operational transaction systems.

The last point around the IBM Cognos differentiation is actually not about technology at all. It's about guidance and thought leadership. Since we've been working with banks so long, we can bring the right services, user groups, models and best practices that help the sponsoring business units be more successful. From a bank's point of view, the combination of those things means a much faster time-to-value and less risk.

KH: What additional capabilities seem to be of interest to retail banks?

LT: Again I think it boils down to understanding. We understand the measures, metrics, dimensions, and challenges that are part of a bank's landscape. We deliver really specific performance insight for retail banks. Good examples are *IBM Cognos Performance Blueprints*, like the ones we have for branch performance and customer segmentation. These models make it very easy for retail banks to plug in their data sources, do minor customizations and start seeing results right away. We offer these for free as part of our commitment to banks.

These Performance *Blueprints* help customers calculate profitability using activity-based costing, conduct marketing initiative planning, measure actual against target and view performance against goals. That investment is part of our commitment to show that we are absolutely serious about performance management and about demonstrating the applicability of our technology to financial services firms and its ability to deliver business results quickly.

KH: Risk and customer care are considered two major areas for retail banks. Why are performance management and BI technologies the right solutions?

LT: I think risk and customer care are two halves of the same coin–one half being the need to focus on the customer. By providing relationship managers, branch managers and people throughout the organization with insight into the customer, the customer ends up getting better service. It's just that simple. The bank knows what a customer wants and can give it to them in a way the competition never could.

The other half of that coin, of course, is that for every customer that comes into the bank, an element of risk is brought with them. The risk could be of default or generating a systemic problem or an operational failure etc. Understanding risk concentrations and exposures across the portfolio of products, customer, geographies, business unit etc. is critically important. IBM Cognos solutions provide timely, consistent, repeatable insight into the customers and the risks associated with them. One could argue that performance management in a retail banking context is all about capital efficiency. If capital is the building block of a bank, a bank simply must know that they're not wasting it on customers who are unprofitable, risky, or transient. They need to know the customer outreach is part of a broader business strategy. IBM Cognos solutions not only provide insight into risk and profitability, but most importantly allows the bank to see the whole customer relationship in the context of the goals and risk appetite of the organization.

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