

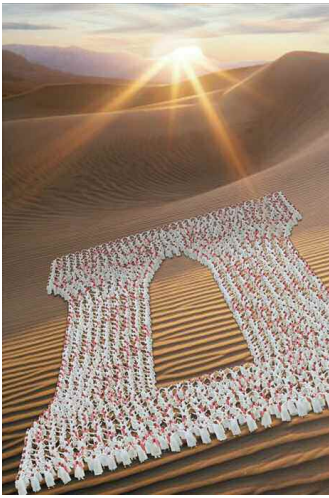
PROFILES IN PERFORMANCE: PROFITING FROM BI ACROSS THE ORGANIZATION



A NATIONAL COMMERCIAL BANK
CASE STUDY



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EXECUTIVE SUMMARY

Financial institutions face many challenges in today's dynamic and competitive banking landscape. Interest rate movements, saturation in some credit businesses, active capital markets, and increasing customer awareness of emerging technologies are forcing banks to look for alternative and innovative product lines and service delivery channels. These innovations should come as a result of precise understanding of customer needs and preferences. All these factors affect profitability, and managing profitability has become the core challenge of the day. Like other banking institutions worldwide, the National Commercial Bank (NCB) of Saudi Arabia is no stranger to these issues.

Popularly known by its brand name, Bank Al Ahli, and headquartered in Jeddah, Saudi Arabia, the NCB is the largest bank in the Middle East. With 1.7 million customers, 260 branches across Saudi Arabia at the end of 2006, and \$4 billion in paid-out capital as of March 2007, NCB is striving to become a premier financial services group in the MENA region. The NCB also has plans to expand selectively in the region, and has already started its regional expansion journey with the recent acquisition of major stake in a Turkish bank. A pioneer in Islamic Banking, the NCB has a strong, varied set of products and services, including personal finance, credit cards, and mutual funds. The bank is also diversifying into auto finance, real estate, remittances, insurance, and brokerage services.

With its leading position in the region, the NCB often takes the role of innovator, particularly in developing Islamic financial products and in the technological arena. Over the last few years, the NCB has taken the initiative to create a culture of business intelligence (BI) by deploying a Cognos enterprise solution to develop, consolidate, and better use the organization's collection of data.

Now, with a Cognos performance management system in place, the NCB is:

- Increasing profits through the ability to identify and act on the right opportunities
- Analyzing and classifying its customer base into smaller manageable segments
- Improving accuracy in customer profitability analysis
- Reducing credit risk through consolidating and monitoring customer credit exposure and continuously enhancing credit policies to ensure adequate credit risk mitigation techniques are in place
- Decreasing reporting times dramatically from three weeks to two hours
- Reducing operational errors to save millions of Saudi Riyals, and improving operational processes for cost-effective process streamlining.

Understanding which customers, products, and channels are the most profitable is the key to driving revenue for a financial institution, and the NCB is successfully demonstrating how to achieve this profitability management in the Middle East.

BUSINESS BACKGROUND AND THE CASE FOR CHANGE

Starting in early 2000, NCB's vision was evolving and it was expanding in many directions. Organizational restructuring, distribution channel expansion, technological investments, innovations in product development, and better process management were some of the focus areas. But the organization knew that it needed better management of its expansion. The NCB was aware that in this information age, profitable business management is a direct result of timely and accurate information dissemination to the decision-makers, and it knew that it was struggling in that respect. Access to information was not keeping up with the speed of the bank's growth.

The NCB's business users found that although they had access to the data warehouse, they were not getting the insight they needed to analyze their customer base.

Mohammed Siddiq, Head of the Central MIS Department at the NCB, explains, "People had access to the data warehouse, which has a lot of data, but they did not really have the right tools to extract and use this information." Without adequate access to intelligence, it was hard for business managers to understand which of their customers, products, or channels were the most profitable.

Data was being fed into the warehouse—from their core banking system, BANCS, the Base-24 system for ATMs and point-of-sale collection, online banking (Al Ahli online), the IVR phone banking system, the Corfax system for investment banking, the VisionPlus system for credit cards, a treasury system, and other disparate legacy systems. There was no shortage of data, but it simply was not used to its potential value. Part of the problem was a divide between the business users and the bank's IT group.

"There was a big gap between IT and the business users," says Siddiq. "The users did not really understand the warehouse, and at the same time, IT was not aware of the business reporting requirements. That is when the management realized a need for a centralized information management function called the Central MIS department—analogous to a Business Intelligence Competency Centre—to fill the gap between IT and business. Our initial mandate was to align the business criteria and make sure that the right information was provided to the users at the right time."

The NCB first experimented with Cognos tools to analyze credit card data, including complete portfolio analysis, product performance and product delivery cycle time monitoring, and operational data-entry error tracking. The main objective of this experiment was to analyze and manage delinquent customers more effectively.

When the business users found that they no longer required programming work to extract the information they needed from the warehouse, the Cognos solution accelerated through the NCB.

Shakeel Mohammed, Head of Business Intelligence in the Central MIS department, says, "The usage started growing, and we started developing portfolio analysis models for the personal finance division responsible for consumer lending." Eventually, the newly formed group of MIS experts and report specialists in Central MIS started to develop reports and analysis models for all the other business areas in the bank.

"We got really good feedback from people implementing product-level and product portfolio models, so we started developing something for the payroll group," Shakeel explains. Group by group, department by department, Cognos was spreading through the bank's business user community. At this point, the MIS group knew that the NCB was ready for the next step—a total BI solution.

THE INITIAL RESPONSE

A slow and careful introduction of the new Cognos 8 BI Analysis Studio paved the way to user acceptance and satisfaction. Shakeel and his team spent considerable time evaluating Cognos 8 BI, migrating the system, and upgrading the user reports from Cognos PowerPlay to Cognos Analysis Studio. With the help of Cognos Support, the migration was smooth, and the initial response to the new Cognos solution was extremely favorable. The users were impressed by the integration of multiple products under a single portal and additional analytical features provided in Cognos 8 BI.

NCB's Cognos 8 BI upgrade was the largest in the Middle East and was completely handled in-house by Shakeel and his team, with stand-by assistance from the Cognos upgrade squad. This implementation was nominated for the Arab Technology Awards 2007, in Dubai, in the Banking and Finance Implementation of the Year category.

“Before the implementation, there was no single version of the truth,” says Siddiq. “MI specialists in different departments were extracting information and the numbers would never match. “We have come a long way in this journey to report one number across the whole bank.”

The inconsistency of the raw data from disparate sources and the difficulty extracting it is fast becoming a thing of the past, Siddiq enthuses, “Now if somebody wants performance information from 2004 or 2005, they don't need to do SQL programming or wait for weeks for their MI specialist to work it out. It's all right there for them, instantly.”

Being able to draw on reliable data from many sources was a key inducement for the analysts and planners. “Another very important factor in the upgrade to Cognos 8 BI was to remove the limitation of one data source per catalog,” says Shakeel. “Now you can see diverse sets of discrete and asymmetric data sources when you connect to a framework model in Cognos 8 BI. This feature, along with the capability of displaying Arabic data, and strong Analysis Studio features like custom subsets and easier slice and dice make Cognos 8 BI a tremendous hit with the users. They understand very well that Analysis Studio was not an upgrade of PowerPlay, but rather a power-packed arsenal of analysis capabilities.”

MANAGING CREDIT RISK

Cognos was deployed first in the Consumer Finance sector of the bank, which is responsible for managing the consumer lending business. Before the Cognos solution was implemented, the analysts used cumbersome manual processes to analyze credit card and loan portfolios. They were finding it difficult to determine the precise details of customer delinquencies and their industrial sector breakdown, and almost impossible to discern trends and directions in order to be able to propose or enhance eligibility criteria by sector.

With Cognos 8 BI enabling credit exposure monitoring by product and sector, delinquencies and collections are much easier to manage.



“The new implementation helps the analysts to do forecasting and target setting,” says Shakeel. “With Cognos functionality, they can get historical data easily, without programming support, and analyze factors such as credit-card application rejection rate.” This ability gives the NCB a very detailed understanding of the risk profile across customer, product, channel, and division lines.

The Risk Management Division of the NCB relies heavily on the Central MIS department for the credit portfolios that allow better management of customer delinquencies and credit risk. Some of the measures derived through Cognos—annualized loss rates, delinquency rates, exposure at default, probability of default, loss given default—help to calculate the credit risk weighted average and subsequently determine the minimum regulatory capital for the bank. Cognos has effectively turned out to be a priceless supporting tool for the effective management of credit risk and consequently for Basel II compliance. SAMA, the Central Bank of Saudi Arabia, has stated that all Saudi banks must be Basel II compliant by 2008, and not surprisingly the NCB has already taken the lead in this initiative.

MANAGING CUSTOMERS, CHANNELS, AND PRODUCTS

Gradually, Central MIS deployed the product to other NCB sectors, and found an overwhelming response. Portfolio managers and product managers, as well as business analysts and planners throughout the organization, were being won over by Cognos.

Easier analysis

One reason for this response was that customer demographics analysis was immediately available to the analysts. Shakeel says, “All the branch-wide analysis is there at their finger-tips. They do not have to wait a week for the data to be downloaded in Excel and then manually reformatted. It is all there immediately, all automated, all online—whether it is branch performance in terms of customer waiting time or service time, or relationship manager performance with respect to their customer portfolios across all products, customer segments, and channels.”

The analysts are impressed with their new ability to extract precisely the intelligence they need from Cognos 8 BI easily and quickly.

“The source of the data is one thing, but the way you extract it, and the criteria and the filters that you apply, are the important aspects for the users,” Shakeel asserts. “For example, if it is credit-card information, you need to ensure that you are picking active cards, not closed or frozen cards. If it is personal finance, you have to retrieve outstanding loans, not frozen loans or loans with a zero balance. It seems simple put like that, but before Cognos, we could not begin to guarantee the right answers to the users’ questions.”

The users were particularly intrigued with the possibilities of the complex analysis capabilities of the system, particularly mixed-grain and stack analysis.

“The bank’s branch network hierarchy starts with regions, broken down into areas, cities, and finally branches,” explains Shakeel. “Analysts can now do mixed-grain analysis, for example to compare a branch in the western region to the whole eastern region or an area in the central region. This is a wonderful feature that the Sales and Quality business departments love.”

Better and expanded reporting

Users throughout the NCB are amazed with the speed of obtaining reports. NCB's Private Banking division was suffering from a totally manual reporting process. For example, before the Cognos solution was deployed, it used to take two to three weeks to gather the data for the private banking report, format it into 20 or 30 linked Excel spreadsheets, and distribute it through the internal email system. Relationship managers waited two or three weeks after month-end to get information on this most important customer segment of the bank.

"There would be copied and pasted data coming in through emails from some system owners, other information extracted from the data warehouse, and some directly from banking systems being maintained internally," relates Siddiq. "It was very slow, ponderous, and highly prone to errors due to the amount of manual processing involved." Now the process takes about two hours, and the quality of the reports is light years in advance of what the bank was used to seeing. With Cognos 8 BI in place, the reporting is now completely automated, and the entire Private Banking division's monthly data analysis and reporting is available within a couple of hours of the first business day of the month.

With secure models deployed in Analysis Studio, Private Banking Relationship Managers have a complete view of only their customer portfolios, customer profitability, and their own incentives. One level above, the team leaders of the relationship managers have a complete view of their managers, and another level above, the regional managers have secure views of their teams and the managers reporting to them. The data is shared and yet made secure at the same time.

The Alternate Channels division has a complete analysis of transactions across all their channels—Al Ahli online Internet banking, Al Ahli phone banking (IVR), and the ATM and POS networks.

Cognos users are profiting from BI across the organization. The Collections & Recovery department also uses Cognos to analyze customer delinquency. The Sales and Marketing departments can now analyze customer segments—Affluent, Mass, and Small Business customers across all products and channels. And they are using Cognos 8 BI to come up with effective sales, marketing, and service strategies. NCB Capital, a new subsidiary investment company of the NCB, uses Cognos to analyze their customers' investment portfolios, transactions, and mutual funds performance.

Faster response time to business dynamics

Another advantage was the speed of response to policy changes throughout the bank. For example, if NCB decided to reduce the income eligibility criteria for a credit card to increase the number of applications being approved, the results of the policy were reflected the following day in analysis models and reports.

With their ability to respond faster, the analysts found that customer attrition rates were reduced. An added bonus was the ease of generating cross-selling leads throughout the organization. With the NCB's extensive array of services and branches, cross-functional communication connections between divisions had previously been slow and hard to maintain. Now everyone was working in synergy at the same frequency.

The bank's branches can work together more closely, because all decisions are based on the same accurate, reliable information, instead of each branch having its own set of contradictory spreadsheets.

The granularity of data has given the NCB an added advantage of financial data transparency, and simultaneously complies with customer confidentiality and compliance norms at par with any SOX-compliant organization.

Reduced operational errors

With the BI framework in place, customer data mining has helped reduce a lot of data-entry and operational errors. For example, Cognos 8 BI helped identify non-payroll customers wrongly coded as payroll who were enjoying unwarranted fee waivers. The Cognos solution helped the bank identify and save millions of Saudi Riyals of losses due to such fee waivers.

Improved customer service

The structured, secure data models provided in Cognos allow a relationship manager to cover the entire reporting requirement for their customers' portfolios. For high net-worth customers, the manager can view the complete customer holdings at a glance, and use this information to offer additional products not on customer's portfolio, request them from the Product Management department, monitor the product cycle time delivery, and provide faster service to their customers.

In addition, transactional data analysis through the Cognos 8 BI solution resulted in NCB's alternative distribution channel strategy to serve its customers through non-branch distribution channels in a cost-effective manner.

With Cognos in place and an improved understanding of what makes customers profitable, the customer relationship managers are able to serve their customers more effectively and also focus on the most advantageous channels and products.

WHY COGNOS?

The NCB evaluated a number of BI vendors, but their past success with Cognos made it a front-runner for standardization at the bank. The NCB knew that Cognos would be able to seamlessly integrate its discrete and disjoint data sources, and the bank already had good reactions to Cognos from their business users.

Handling requirements

Among other features, Cognos also had the ability to solve one special problem for the NCB. The bank realized that as time went by, it would need to handle Arabic names.

"The demand grew as usage grew and we were getting to a point where there was one very specific need to have Arabic data in our models," recalls Siddiq. Customer names in the NCB warehouse were a mixture of English and Arabic. The problem was that someone always had to manually convert Arabic names to English for analysis and reporting purposes. "That is when we started looking at a new Cognos solution," says Siddiq.

As well as the language feature, Cognos demonstrated how the new Cognos product would handle their other requirements. With its size and growth rate, the NCB needed a scalable solution. The bank needed the ability to drill-down into its data repositories, and it needed to be able to access and work with them on one consolidated platform. As these are all standard functionalities in Cognos, the Cognos solution was the clear choice.

The implementation strategy

The decision to go with Cognos was made, but the BI team was not going to rush into it. Instead, they decided to “take our time, test it out, and ensure that there was a comfort level reached before we moved to the new Cognos product,” Siddiq explains. “The BI culture is still not an accepted culture in the Middle East.”

When Shakeel visited Cognos Forum in Las Vegas in 2006, he was amazed at the size of the BI community in the US. “In the Middle East, BI is still in its infancy and the work culture is such that business managers find it hard to accept that they should create their own reports and acquire insights directly from BI tools,” claims Shakeel.

So the strategy at the NCB was for slow and steady progress along the BI roadmap. Siddiq summarizes, “What we have done so far is developed the fundamental data engine to reach out to the middle management—the business managers, the key business planners, and analysts. Eventually, our objective is to have the top management using analysis models and getting real-time information on high-level key performance indicators (KPIs) that drive business. With the hard part already done, we are ready to go to the next level.”

The migration to Cognos also had its difficulties until NCB received help from Cognos Support. To begin with, NCB’s MIS group had problems. “We had over a thousand reports to migrate, and it was not working out,” says Shakeel. “We did not have the right migration tools, and Cognos 8 BI was still new to us.” But with initial support from the Cognos team, the situation improved. “From that point on, our relationship with Cognos has been absolutely fabulous,” Shakeel relates. “Over the past year, the support we have got directly from Cognos has been amazing.”

GOING FORWARD

The NCB now has a comprehensive BI implementation in place but there is more to be done before deployment is enterprise-wide.

Siddiq relates, “Most of the bank’s business areas—Consumer Finance, Investment Services, Islamic Banking, Retail Banking, the Private and Affluent divisions—are using Cognos at the analyst or portfolio manager level. We are now striving towards our goal of introducing senior management to the system.”

Now, the NCB’s plans for the product include:

- Enhancement of the database and the features available to their users
- Expansion to non-financial departments of the bank
- Continuing to improve the adoption of a BI culture in the company
- Balanced scorecards and KPIs for the Individual Banking and Consumer Finance sectors
- Operational BI

“At this point, customer profitability information is available only for the Private Banking sector,” says Siddiq. “We are working with the Finance department to extract the revenue data and eventually the customer profitability information for the rest of the customer segments as well. We have the fundamental model, so we just have to plug the data in.”

The Human Resources department is looking at extracting employee information from the HRMS database for analytical purposes, such as employee turnover data, headcount planning and employees training data analysis for its 5,126 plus staff.

As each department adopts Cognos, confidence in BI and in the product is increasing, and usage spreads through the bank divisions.

“With the success of each division, another convert is made,” says Siddiq. “The whole bank is shifting its direction toward Cognos, and soon the Cognos solution will be enterprise-wide. We also have begun investigating the Cognos operational BI capabilities.”

SUMMARY

For a financial institution such as NCB, the challenges never stop. The bank’s profitability is always under attack from higher interest rates, greater competition, and increased regulation.

To counteract these problems and drive revenues up, banks need to understand which customers, products, and channels are the most profitable, devise appropriate sales, service, and marketing strategies, advance their forecasting and budgeting processes, improve cost management, and speed up service delivery.

To be able to improve margins and offset these issues, a bank relies on its data for insight—not just the data in itself, but the ability to access more relevant, consolidated, key, actionable data in a timely way.

With Cognos, the bank has speeded up its reporting process exponentially, improved risk management and reduced exposure radically, and increased profits from many of its divisions. In a few short years, the NCB has developed a focus of BI culture in the bank and created a community of enthusiastic business users.

BI has not been part of the traditional business culture in the Middle East, but the tide is turning in Saudi Arabia, with the NCB in the forefront of the change, and Cognos a key driver of that change.

ABOUT COGNOS

Cognos is the world leader in business intelligence (BI) and performance planning software for the enterprise. Our solutions let companies improve and direct corporate performance by enabling all of the key steps in the management cycle—from planning and budgeting, to measuring and monitoring performance, to reporting and analysis. Founded in 1969, Cognos employs over 3,500 people and serves more than 23,000 customers in over 135 countries

Financial services leaders choose Cognos including all of the top 10 banks in the U.S. and in Europe. These industry leaders, and over 1,000 other banks, insurance companies, and financial services institutions use Cognos software to increase customer, product, and channel profitability, manage and reduce risk, address compliance issues, and improve the predictability of financial performance. As a result of over a decade of focus on financial services, Cognos has developed tailored solutions, effective best practices, and the right software to help our clients limit project timescales, minimize project risk, and deliver faster ROI.