



Decide to Survive

Four Imperatives that Make Better Decision Management Essential in Uncertain Times

Number 13 — February 2009

Entering a global recession, companies must respond to increasingly complex markets, changing threats and fleeting opportunities. They must show compliance with a growing regulatory burden and more layers of regulation at national and international levels, while also reducing operating costs. Companies must be able to serve customers who are simultaneously more demanding and more conservative, and optimize the return they get on every asset.

Decision Management answers four imperatives for businesses seeking to thrive in today's difficult environment:

- Give business users control to increase agility.
- Make decisions in the face of uncertainty.
- Drive out costs and ensure optimal resource allocation.
- Improve customer treatment everywhere.

FICO has built the first platform that addresses these four imperatives for Decision Management, and helps businesses use every decision to compete more effectively.

FICO has built the first platform that addresses four key imperatives for Decision Management. This platform includes the industry-leading FICO™ Blaze Advisor® business rules management system.

» INSIGHTS

» **The Four Imperatives for Change**

Companies are faced with a radically different and rapidly changing economic environment. Developing new strategies to survive and thrive in this new world is their top priority. Yet new strategies will not be enough—sound execution of those strategies will be required. Only new strategies plus rapid and effective execution of those strategies will guarantee business transformation and keep companies in business despite difficult and dynamic markets.

Large enterprises are like aircraft carriers—powerful and potent, but slow (bear in mind that an aircraft carrier needs 18 miles to make a U-turn). The typical enterprise is loaded with powerful, feature-rich systems that are slow to react to changes. Why? Partly it's because most IT systems are not built for change and have a mostly myopic focus on back-office productivity and efficiency gains.

Most enterprises still embed process, rules and reporting in applications. In other words, process flows, rules and analytics are hard-coded into individual applications. It's hard to even find these definitions when they're mixed in with other application code, and making changes requires lengthy QA procedures. *(Evelson, Teubner and Rymer May 14 2008)*

Many companies will find that their Information Technology investments, their IT legacy, will act as an obstacle in this change rather than an enabler. A lack of alignment with business drivers, a focus on the past, fixed patterns of resource usage and customer-hostile technologies are all part of the problem.

1. IT is often not aligned with the business and cannot be controlled or managed by those on the business side of the company. IT often changes too slowly to support an evolving business. When it does change, the changes that are made are often not exactly what are needed by the business. Even if a system was well-aligned when originally developed, ongoing changes and maintenance typically leave it less and less so over time. One of the critical causes of this lack of alignment is that the decisions embedded in systems are both too hard to change and developed without business engagement—they are out of step with the business. **Companies must give business users control to increase agility.**
2. IT systems evolved out of a need to capture and record what was happening in a company. As a result, they are very focused on the past and on synthesizing and reporting past activities. However, companies must run with an eye to the future: companies *care* about the past but they *worry* about the future. Yet the future is uncertain. Companies need to turn this uncertainty into manageable risk assessments so they can make judgments or choices and take appropriate actions. **Business users need to make decisions in the face of uncertainty.**
3. While IT systems initially reduce cost—eliminating positions, reducing unnecessary work, etc.—most still use technology to “pave the cow path”: the fundamental process and resource usage are the same after automation as before. Remaining costs and existing resource allocations are baked into the system. **Companies need to continually challenge assumptions, drive out costs and ensure optimal resource allocation.**
4. Finally, many IT systems are customer-hostile. Systems are focused on repetition and standardization: they are not personalized or reflective of a customer's needs or wants. Built to support specific channels or business units, systems are often siloed, treating customers inconsistently. As more and more customers are using IT systems directly themselves in self-service scenarios or on the web, the way the systems treat customers has become critical to the overall customer experience. **Companies must improve customer treatment everywhere.**

» INSIGHTS

» **A Modern IT Architecture Is Necessary but Not Sufficient**

These imperatives are not new. Most IT companies have invested heavily to try and deliver a Business Technology platform with these characteristics. Despite these significant investments, the evidence shows that IT has not done enough.

- Investments in **data warehouses** and **business intelligence** are typically justified on the basis that they will improve decisions. This promise is limited by the operational realities of such an infrastructure, which is aimed at knowledge workers and managers, or “power-users”. In an operational, transactional environment, analytic insight must be delivered either to front-line staff with little or no analytic skills or to fully-automated processes. Even so-called Operational BI or BI 2.0 cannot deliver on this promise.
- **Business Process Management** investments are often focused on agility. If a process is managed using a Business Process Management system, then it should be possible to make changes to it more easily, reducing the time to implement a needed change. All too often, however, these solutions result in over-complex, fragile and less agile processes—“spaghetti” processes—because decisions are not modeled explicitly. This creates unnecessary complexity in processes, making them harder to change and evolve.
- There is no question that adopting a **Service-Oriented Architecture** or SOA improves consistency and reuse in systems while decreasing the work and cost involved. SOA will not, however, allow business logic *within* these services to be reused across multiple services, even though that would dramatically improve the consistency of those services in treating customers.
- **Agile development methods** have revolutionized how some companies approach application development. Rapid iteration, pair programming, dynamic requirements management and a focus on working systems all make agile development an effective vehicle for delivering the right applications faster. However the use of traditional *procedural* languages limits its effectiveness, as such code does not facilitate the essential conversation between developers and domain experts, is rarely self-documenting, is impenetrable to the domain experts and is often hard to change.
- As enterprises move from a batch mindset, driven by the business cycle, to one focused on responding to the events that matter to the business and to its customers, many are adopting an **Event Driven Architecture**. To have these new systems actually *process* events, rather than simply *monitor* them, these systems must be able to make business decisions.

Aggressive companies have rightly adopted many new technologies and approaches in recent years and are continuing to do so. Yet they also need an end-to-end solution for managing decisions across the customer lifecycle that allows the business to optimize decisions, minimize time to value and drive down Total Cost of Ownership. Such a solution needs to work in a modern, heterogeneous, enterprise IT environment, and must increase the value of investments in data, process, service and event infrastructure. FICO's Decision Management platform is such a solution.

» INSIGHTS

» **Decision Management Is Essential**

Adopting Decision Management addresses each of the four imperatives, in a way that extends the capabilities of the modern IT enterprise:

- 1. Decision Management gives business users control to increase agility.** It puts business users in charge of the operational decisions that drive day-to-day transactions. This accelerates the time to value for new products, new services and business changes. Decision Management builds a new partnership between the business and IT, and removes the lag caused when companies must wait for IT to make changes to information systems. It makes existing processes more agile by allowing the decisions to be changed independently of the processes. Decision Management also improves compliance by allowing those who understand the regulations to make the changes required.
- 2. Decision Management helps companies make decisions in the face of uncertainty.** As part of a Decision Management system, analytic models can turn the uncertainty inherent in business into probabilities (of success, failure, risk or reward), and so ensure that all decisions take risk into account. This prevents over-exposure and puts risk management to work throughout the company. It also enables new approaches to be stress-tested before being deployed, and allows for the development of flexible alternative scenarios that are ready for deployment in crises.
- 3. Companies can use Decision Management to drive out costs and ensure optimal resource allocation in their business, maximizing the return they make on their assets.** Optimal resource allocation involves making the right decisions about how each resource is to be used and understanding how these decisions impact the bottom line. Finding the optimal work-out approach for a bad debt, for instance, means understanding and optimizing how loans, pricing and terms interact for a specific customer.
- 4. Decision Management helps companies improve customer treatment everywhere.** Decision Management ensures that decisions about customers are consistent, sound and constantly improving. Managing decisions delivers cross-channel and cross-platform consistency, allows for an enterprise focus on customers, and uses valuable data to retain, develop and support customers.

Applying Decision Management allows companies to transform their investments in IT into an adaptable and agile Business Technology platform, allowing them to avoid disaster in this new world. To quote George Colony, Chairman and CEO of Forrester Research:

"If we don't get from IT (Information Technology) to BT (Business Technology) we're going to have more disasters like our present mortgage meltdown. Why? Because IT creates impenetrable systems that human beings can't manage. BT is about human beings back in control."

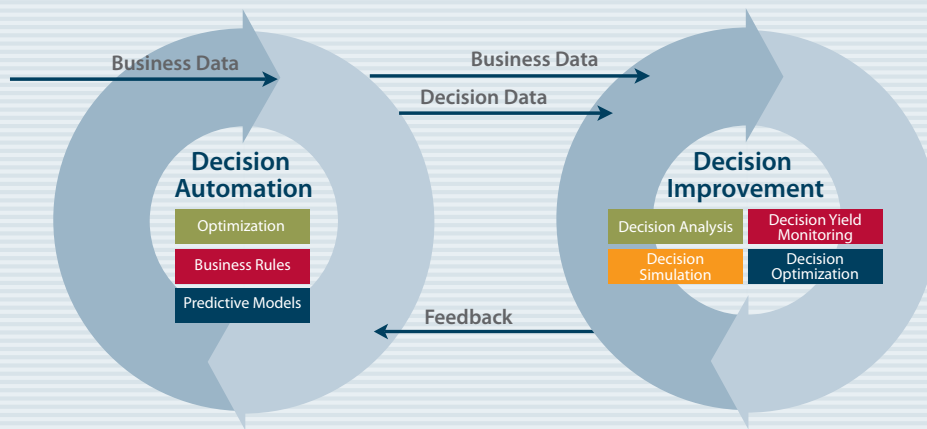
Decision Management is the difference between a collection of Information Technology assets and a true Business Technology platform. Companies looking to succeed and thrive in these difficult times must adopt Decision Management.

» INSIGHTS

Build a platform for improving decisions

While many companies focus on automating decisions, FICO places dual emphasis on decision automation and decision improvement, and on creating a closed-loop environment. Closing this loop is essential if businesses are to develop ever more effective Decision Management.

Today, business data flows into the decision automation environment where business rules, predictive models and optimization make decisions. To improve these decisions, however, customer reactions to these decisions—as well as information recording what decision was taken and why—must be fed into a decision improvement environment. Here the results are evaluated, new and refined rules developed and decision-making alternatives selected. Decision simulation, optimization and analysis all come together to help the business improve decisions rapidly and effectively.



» FICO's Decision Management Platform

FICO has been helping companies succeed by advancing their Decision Management for more than 50 years. The FICO Decision Management platform not only builds on this extensive experience, it is also the basis for FICO's market-leading Decision Management applications.

Built from best-of-breed components like the FICO™ Xpress Optimization Suite and FICO™ Blaze Advisor® business rules management system, FICO's Decision Management platform is leading the way to a decision-centric future. FICO's leadership in the underlying technologies and practices of business rules management, predictive analytics and optimization uniquely positions the FICO Decision Management platform to support each of the four imperatives for Decision Management.

» INSIGHTS

FICO's Decision Management Tools

FICO™ Blaze Advisor® business rules management system

FICO Blaze Advisor is the leading business rules management system, or BRMS, on the market. A BRMS is “a complete software platform for defining, managing, and executing business rules in an information systems environment” (Taylor and Raden 2007). Blaze Advisor consists of design tools, a repository to store and manage business rules and related artifacts, a business user/business analyst rule maintenance environment and deployment and release management capabilities.

The Blaze Advisor system's Integrated Development Environment is developer-centric and allows developers to handle complex integration tasks, detailed performance analysis, sophisticated release management tasks and much more. Integrated with a robust repository for versioning and access control across multiple projects, Blaze Advisor supports both project-centric and enterprise-wide use of business rules to define decisions. Blaze Advisor also has a unique and patented template-driven approach to business user rule maintenance. Templates that allow any amount of control over how rules can be added, combined with the richest set of business rules metaphors, make Blaze Advisor an ideal platform for business-IT collaboration in the management of decisions. With support for decision tables, decision trees, scorecards, rule flow and more, rules can be represented in the most suitable and intuitive format for ease of maintenance.

Decision Simulator, a new Blaze Advisor add-on module, makes it easy to run sample cases through new rules and study the effects. Decision Simulator allows you to confirm that proposed rules will have the desired impact, and accelerate deployment by empowering business users to evaluate results themselves, without IT involvement. Decision Simulator also allows multiple versions of rules to be compared so that the most effective rules can be used. And it does all of this without the need for costly custom coding.

SmartForms, another Blaze Advisor add-on module, extends the reach of business rules to the user interface. SmartForms supports the development of interactive, rules-based dialogs for intelligent information capture. SmartForms does not require custom coding, and ensures consistent use of business rules at both the back-end and front-end.

FICO™ Model Builder

FICO Model Builder is an ideal environment for applying advanced analytics to decisions. It consists of a robust development environment for statisticians and analysts. It allows direct access to enterprise information sources and a full range of data integration and cleansing capability.

Model Builder has all the standard modeling techniques—such as linear and non-linear regression—as well as many resulting from FICO's ongoing analytic research efforts. These include genetic algorithms, leading-edge purchase pattern algorithms and, of course, FICO's own scorecard development approaches. Built from the ground up to support team development, Model Builder allows analysts to collaborate on models and to share and reuse modeling components. Through its integration with Blaze Advisor, Model Builder deploys predictive models directly into the Decision Management environment, minimizing the time to value for analytics.

FICO™ Xpress Optimization Suite

FICO Xpress Optimization Suite is a complete environment to define and build powerful optimization models. These models maximize, say, profit for a given set of constraints and inputs. Easy to integrate into rules-based decisions, these models run complex mathematical algorithms at execution time to find the best possible decision in real-time.

The FICO Xpress Optimization Suite includes the world's foremost mathematical programming language for optimization in any industry—Xpress Mosel. This powerful compiled modeling and programming language is specifically designed for the rapid modeling of optimization problems, and is easy to learn and user extensible. A complete visual development environment provides tools for pre- and post-processing data, creating and analyzing optimization solutions, deploying runtime libraries, and generating graphical user interfaces. Finally, Xpress includes a full range of sophisticated, robust optimization algorithms for solving large-scale linear problems (LP), mixed integer problems (MIP), quadratic problems (QP), mixed integer quadratic problems (MIQP) and quadratically constrained quadratic problems (QCQP).

FICO™ Decision Optimizer

FICO Decision Optimizer is a powerful environment that encapsulates our proven methodology for optimizing account-level actions to achieve portfolio-level goals. It provides visual editors and tools along with an extensive set of reports that enable analysts to manage decision models, data, business objectives and constraints, and apply them using an embedded Xpress solver to explore alternative scenarios along an efficient frontier of optimal solutions. Analysts can package their projects into a safe environment where business users can do further simulations and stress testing using alternative assumptions to assess the trade-offs of competing objectives, and gain confidence that the resulting solutions meet their needs.

» INSIGHTS

» **Give Business Users Control to Increase Agility**

Although having business users maintain rules is a major factor in agility and cost savings when using a BRMS, generally business users don't want to maintain rules any more than they want to write code. (Taylor and Raden 2007)

Putting business users in charge of operational decisions means more than just putting the rules for those decisions up on a web page.

To put business users in charge requires a sophisticated infrastructure for business rule management. At the core of FICO's Decision Management platform is FICO Blaze Advisor, long a leader in making it possible for business users to run their business and maintain business rules in the process. Blaze Advisor is uniquely suited to empower business users for a number of reasons:

- Most BRMS rely either on business users understanding rule syntax or on programming a custom interface to disguise this syntax. Blaze Advisor, in contrast, has a unique, **template-based** approach to building rule maintenance applications for non-technical users. These templates allow business users to change only the parameters they expect to change, only part of a rule or a complete rule. They allow the rules to be presented in a way that makes sense to them, overlaying a completely different presentation if necessary. And they allow business users to create and delete rules rather than conform to a defined structure or pattern.
- Many rules are best presented as a set using a **graphical metaphor**. Some users will think of their rules as a decision tree, a decision or look-up table or a predictive scorecard. Blaze Advisor allows rules to be viewed and edited in web pages using all of these metaphors. Having been first to market with graphical metaphors like scorecards, FICO is leading the way in developing new visual metaphors for business rules. FICO's Strategy Designer is the first product to allow rule sets to be viewed as graphs—specifically what are known as Exception-based Directed Action Graphs. These EDAGs allow rules that would have required enormously complex decision trees to be represented in a more compact, more usable form, making it easier for business users to manipulate them.
- While a Decision Management platform must make it easy for business users to review and edit their business rules, they need more than that if they are to truly control the rules. Unlike BRMS that rely on manual inspection of business rules, Blaze Advisor has the broadest set of business rules **verification and validation** tests to ensure completeness and correctness—all available to business users. Robust unit tests can be built by the IT department and then used by business users to make sure a proposed change won't break anything. Blaze Advisor is the only BRMS to support a fully customizable release process that links business and IT for proper release management. After all, it is no use being able to put the business in charge only of unimportant decisions—they must be able to control and change the decisions that drive the business.

These elements—templates, metaphors, verification and release management—have made Blaze Advisor the best choice when putting business users in charge of operational decisions. Future plans for Blaze Advisor focus on ensuring continued and improved usability for business user control of decisions and for decision monitoring.

» INSIGHTS

Spotlight: Accelerating Rule Development



When Egg plc, the world's largest internet-only bank, set out to create a coordinated credit management system, their goals included coordinating credit risk decisions, reducing manual interventions and linking disparate IT systems. They also needed flexibility combined with low time to market and strong business ownership—business ownership of scorecards, strategies and policies, and minimal IT involvement after implementation.

To deliver on this vision, Egg adopted Blaze Advisor and built a "Blaze Control Center" platform that enables business users to build and test the rules on their PCs. The rules are then deployed to a central repository where they are maintained as a distinct body of knowledge. While Egg gives its business users the power to personalize their credit rules free of IT involvement, a rigorous control process enabled them to do this with confidence. The

system allows the relevant business units to respond to changes in their operating environments far more quickly than was previously possible. For instance, the average rule change time was reduced from 35 days to 2 days. Besides empowering the business, the system also delivered a great ROI with manual referrals reduced from 35% to 9%, income increased by 1.5% and provision for bad debt reduced by 1%.

"When we're asked, 'How many times has IT been involved in rules roll-outs?' the answer is always, 'None.' When we're asked, 'How many times has Blaze Advisor been down?' the answer is always, 'None.' People don't believe us—IT projects don't work like this. This one did." —Phil Jobson, Egg plc

» Make Decisions in the Face of Uncertainty

FICO's history in the banking sector has led it to develop a strong sense of how to manage risk and make decisions in the face of uncertainty. Predictive analytic models are critical for turning uncertainty into manageable risk. FICO's Decision Management platform is ideally suited to this difficult task.

- Ensuring that predictive models can be rapidly developed, integrated into operational decisions and pushed into production quickly is essential, as models age rapidly, losing their predictive power. FICO's Decision Management platform leads the way in this integration with **easy deployment of predictive models** into rules-based services. Unlike those BRMS that require manual recreation of predictive models as business rules, Blaze Advisor was the first to deploy models built with any predictive analytic workbench. Taking advantage of the Predictive Model Markup Language, a wide range of predictive models can be automatically integrated and deployed. Blaze Advisor is the only BRMS developed by a company with expertise in predictive analytics, and it offers even tighter integration with Model Builder, FICO's modeling workbench.
- FICO's Model Builder software complements standard analytic toolkits with unique FICO approaches for designing the best possible model segmentation schemes and automating the search for predictive variables using genetic algorithms. Unlike older, if more established, analytic workbenches, Model Builder has been built from the ground up for **collaborative modeling and operational deployment**. Model Builder also embodies FICO's proven approach to developing the predictive scorecards so essential for risk management and for compliance with regulations such as Basel II.

» INSIGHTS

Overcoming Data Barriers to Measuring Customer Risk



Bank of Communications, one of the four oldest banks in China and one of its most innovative, needed to manage the uncertainty of a new and rapidly expanding credit card market in China. Despite 5 million cards issued, Bank of Communication had little data for the China credit card market, and with 10,000 credit card applications daily, Bank of Communications needed to manage explosive growth while minimizing risk exposure to achieve profitability.

Its strategy was to quickly develop application and behavior models to determine applicant risk levels, customer account limits and the best rates and terms to offer. These models allowed them to accurately score new applications, effectively manage credit limit adjustments, predict collection repayments, detect fraud and comply with Basel II. It adopted a standardized process to develop application and behavior models and conduct data-driven risk management strategies using FICO Model Builder. Model Builder offers an identical working environment for model development and deployment teams and an integrated repository to improve collaboration and turnaround. Model Builder also offers a complete range of components to assess data sources, view and analyze data, create variables and evaluate models. As all these components are integrated into a common process, there is no need to rely on programmers to recode data files, variables and scoring logic in order to deploy models, saving months of effort.

With Model Builder, Bank of Communications now creates, tests and deploys application and behavior models for its credit card products and originations much faster than before—it reduced its time to market by several months. This lets it respond to changes in the market effectively while reducing costs and managing the risk and uncertainty inherent in a rapidly expanding market.

what-if scenarios in Decision Optimizer. Decision Optimizer allows business users to see how a strategy performs if assumptions turn out to be different than expected. Uncertainty in these assumptions can also be considered, with Decision Optimizer employing robust optimization to seek good solutions across the ranges of uncertainty identified, rather than a single solution that might be very sensitive to changing circumstances

In uncertain times, no strategy will remain optimal for very long. The time to get the strategy into production is therefore critical—the longer it takes, the less likely it is to work well once it is in production. FICO's focus on time to value throughout the Decision Management platform improves your results while also helping you cope with uncertainty.

- Because the future is uncertain, companies need to establish how they would **respond to potential scenarios**. Using the FICO Decision Management platform, this can go beyond planning documents and spreadsheets. Companies can develop alternative rules that define how they would respond in various circumstances and use the powerful Decision Simulator in Blaze Advisor to see how those scenarios might play out. Detailed reporting and analysis of the results of simulation can identify the right rules to use in each circumstance. The Blaze Advisor system's robust repository can be used to store the rules that will be needed and then rapidly deploy them if and when the scenario comes to pass. The unique combination of the Blaze Advisor system's strong impact analysis tools and the use of Strategy Designer to see the logical differences between scenarios, without being distracted by layout or format, complete this scenario management picture.
- As uncertainty has hit the financial markets, regulators and investors are looking for companies to do more **stress testing**. They want to know that capital reserves and loss ratios will stand up in a wide range of likely (and unlikely) situations. Stress testing helps to identify potential issues when a strategy is applied under a range of possible environmental conditions. FICO's Decision Management platform can provide invaluable support to companies conducting stress testing. Segmentation, for instance, is a critical first step and Model Builder and Xpress can be used to build effective segmentation models. Within these segments, Model Builder can be used to develop highly predictive models for key variables, and these models can then be consumed within

» INSIGHTS

» **Drive Out Costs
and Ensure Optimal
Resource Allocation**

When it comes to driving out costs, a Decision Management platform has two roles to play. It must help reduce IT costs and it must help build systems that will reduce other costs.

- FICO's focus on **business user rule maintenance**, discussed above, can dramatically reduce ongoing IT costs for a system. All IT departments know that the ongoing maintenance of a system costs far more, over time, than the initial development of that system. IT departments often find that 80% or even 90% of their budget is spent running and maintaining existing systems. Empowering business users to take control of their operational decisions can dramatically reduce the cost of IT resources needed to maintain the systems that use those decisions. Not only does this help reduce IT costs for a system, it frees up IT resources to work on the backlog of potentially valuable systems that all companies have.
- **Optimization** technology has a proven track record in driving out costs when applied to operational decisions. FICO's Decision Management platform contains the Xpress Optimization Suite for precisely this kind of decision. Unlike other optimization approaches, our integration of Xpress with Blaze Advisor, allowing the combination of business rules and optimization, ensures that decisions can be automated in a way that maximizes a company's return on its assets. For example, when there is a large universe of possible decisions—such as in debt consolidation or mortgage workouts—the integration of Blaze advisor and Xpress finds the best solution that adheres to company policies and regulatory demands. Policies and regulatory demands become knockout and product eligibility rules managed by Blaze Advisor. Within this framework,

the Xpress Optimization Suite generates decisions that optimize risk, payments and profitability for various constraints and objectives. The combination also builds on predictive models when complex segmentation or tiering is required. Segments can be developed as a set of business rules that take advantage of predictive models of risk, profitability, etc. For each segment, optimization technology then determines the optimal premium to retain the right customers while being priced according to risk. The optimization engine balances conflicting goals such as minimizing loss ratio while maximizing the number of policies written.

FICO's Decision Management platform uniquely combines optimization, predictive analytics and business rules to ensure that you can minimize costs and make optimal resource allocations across all your decisions.

Improving Cost Efficiencies Through Optimization



The Asia-Pacific arm of HSBC, one of the world's largest banking and financial services organizations, had successfully created and deployed optimized risk management strategies. They also needed to deploy strategies across more than 20 countries with unpredictable economies, and make adjustments quickly when business conditions changed. Deployment like this is a challenge because strategy optimization is a relatively new discipline, and most available solutions are highly academic.

HSBC created an optimization factory using the FICO™ Custom Decision Optimization framework. This includes FICO Decision Optimizer, which analytically calculates the optimal action, given business goals and constraints, as well as a methodology framework configured for a specific decision area. HSBC embedded its own models and used the framework to rapidly build and deploy credit line management strategies. Credit line management is a decision area that can deliver strategy improvements month after month, making it ideal for the kind of repeatable process HSBC built.

Using the framework, HSBC was able to deploy a credit line increase strategy in six months. Just six weeks later, it developed separate strategies for five countries. And this was working with business analysts who had no prior experience in optimization technology and no mathematical background.

» INSIGHTS

» **Improve Customer Treatment Everywhere**

Delivering consistent, and consistently excellent, customer decisions requires that a Decision Management platform has the ability to be used enterprise-wide, so it can deliver decisions in every channel and on every platform. Unlike solutions focused on a single channel or on one element of the customer lifecycle, FICO's Decision Management platform is cross-platform, cross-channel and available throughout the customer lifecycle.

- FICO's Decision Management platform has a unique **cross-platform capability**, allowing decisions to be deployed to Java, .Net and COBOL mainframe environments from the same repository. This allows the same logic to be applied to customer treatment decisions throughout the lifecycle and across all channels and touchpoints. Particularly important to companies migrating from legacy environments to modern platforms, the Blaze Advisor system's support

for cross-platform deployment supports gradual and thoughtful migration. With the business logic managed once, and managed properly, systems that need it can get access to it regardless of their technology approach.

- The other aspect of consistent customer treatment is that it is **enterprise-wide**. Customer treatment is hard to improve project by project, so companies looking to become customer-centric and to improve customer treatment must think about enterprise-level questions. How will decisions and the rules and analytics within them be managed across the enterprise? How can a repository or single project be developed in a way that will allow it to be integrated into a broader picture over time? How can an enterprise decisioning backbone be developed without requiring a "big bang" project? FICO's Decision Management platform has a robust repository at its heart. This repository supports every aspect of decisions—business rules and models—and allows multiple projects to share assets with each other. Security, version control, auditing and everything else needed for proper enterprise management are provided as part of FICO's commitment to supporting its enterprise-class customers.

As the leading supplier of enterprise-class Decision Management, FICO can help you improve all your customer decisions—every lifecycle stage, all channels, all platforms and all touchpoints.

Coordinating Customer Treatment

Dell Financial Services, providing loans and leases for consumers and small/medium businesses, has a portfolio of \$4.5 billion. Due to stellar growth since its inception in 1997, the scope of Dell's decision making for consumer and business lines of credit was becoming increasingly more complex with higher performance demands. The existing system was inflexible when trying to add new ways to predict risk, and the business was completely reliant on IT for all changes in decisioning logic, making changes difficult and time-consuming.

Dell Financial Services took a Service Oriented Architecture approach to Decision Management to improve the speed and accuracy of risk and fraud decisions, with a vision of a "Universal Decision Engine" that could support all the decisions required as coherent, rules-driven Decision Services. The UDE is built around FICO Blaze Advisor as well as FICO fraud and origination software.

The UDE allows Dell Financial Services to think enterprise-wide, rather than focusing on individual channels or business units. Beginning on the consumer side, Dell Financial Services is rolling out new Decision Services for small/medium business, account management, collections and offer pre-screening, each built on the UDE. Results have been impressive—the new approach manages fraud much more effectively than before, has reduced the time to introduce a new offer from up to nine months down to less than two weeks, and has delivered double-digit increases in application approvals and revenue growth.

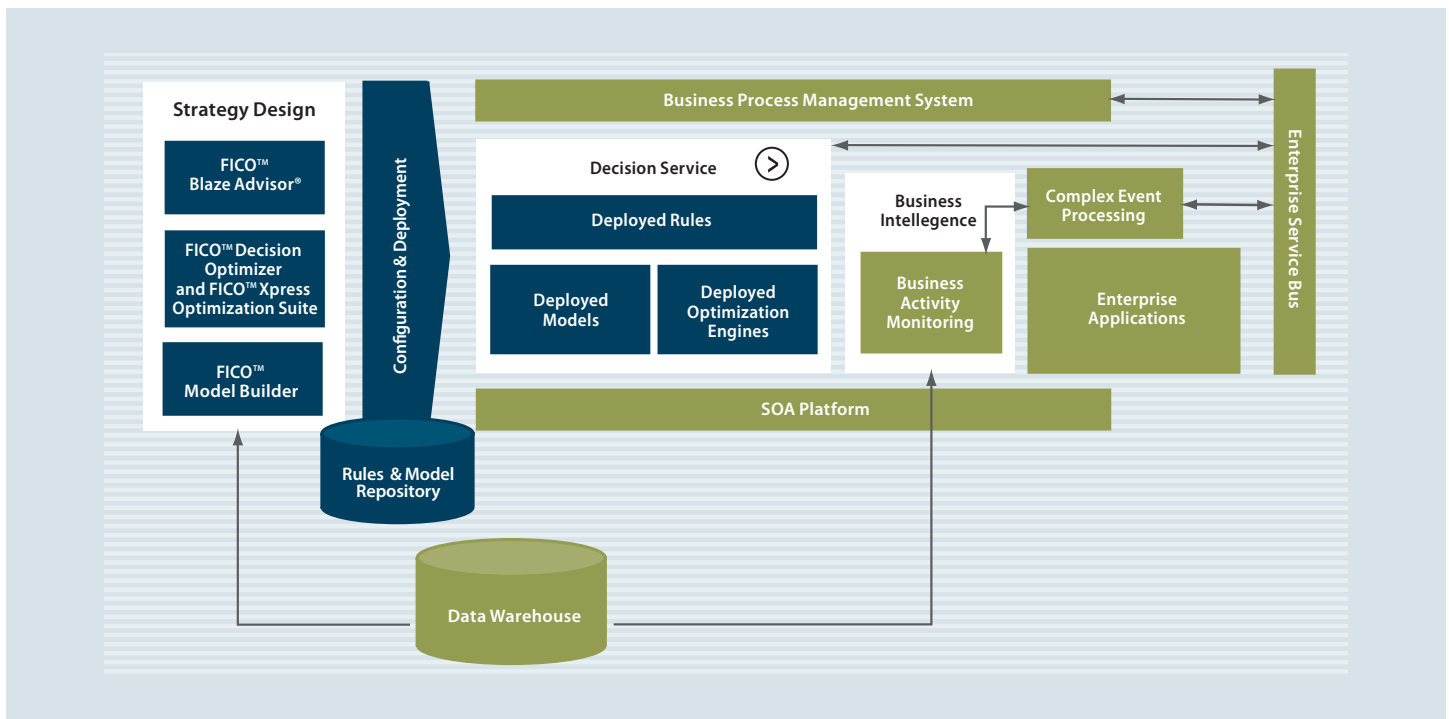
"Decision Management truly requires enterprise thinking. As we begin to roll this out outside specific silos, we begin to see how the impact on the fraud back-end is directly correlated to what we do from a credit decision standpoint, and vice versa."
—Brian Burdick, Dell Financial Services

» INSIGHTS

» **A True Decision Management Platform**

FICO has the most innovative and complete Decision Management platform on the market today. FICO has used the tools that comprise the platform to develop its leading suite of Decision Management applications for credit origination, customer management, collections and fraud. In addition, hundreds of FICO customers around the world use our tools to develop custom decisioning applications.

The architecture consists of the strategy design components of FICO Blaze Advisor, FICO Decision Optimizer, FICO Xpress Optimization Suite and FICO Model Builder, configuration and deployment support, an integrated repository for analytic models and business rules, and standards-based deployment of powerful decision services. These decision services can be used as an integral part of a modern IT architecture, as shown below.



Deployed on any standard SOA platform, decision services provide intelligent decision making for business processes being managed in a Business Process Management System. Furthermore, they can connect with an Enterprise Service Bus to support loose-coupling to business processes, become part of a Complex Event Processing solution or enhance existing enterprise applications. Decision services can also be deployed into non-service-oriented environments to support legacy applications and business intelligence, especially Business Activity Monitoring, by completing the feedback loop and allowing users of business intelligence systems to make the changes their information suggests are necessary.

» INSIGHTS

» Conclusion

“Shared decision services will lead your organization to begin managing decisions as assets. Many organizations manage their transactional data and their business applications as assets. Some are now managing their processes as assets. Managing decisions in this way is the next step on this continuum.” (Gualtieri and Rymer October 3, 2008)

One of the biggest challenges for businesses who want to survive and thrive in a difficult economy is to make sure they can manage decisions with greater precision, agility, speed and consistency, while driving down costs. FICO's Decision Management platform supports the adoption of

Decision Management and the tight integration of Decision Management capabilities with a company's existing IT architecture. Adopting Decision Management and the FICO Decision Management platform builds on a modern IT architecture and allows companies to manage decisions as a true corporate asset.

Managing decisions as assets using the Decision Management platform empowers business users, accelerates the time to value for business changes and helps build a new partnership between the business and IT. It helps companies make decisions in the face of uncertainty and apply analytics to every decision for more effective risk management. It reduces the cost of systems development and maintenance and ensures optimal return on a company's assets. Finally, it helps companies improve the customer experience with an enterprise focus on customer treatment.

References and Further Reading

- Davenport, Tom, and Jeanne Harris. *Competing on Analytics: The New Science of Winning*. Boston: Harvard Business School Press, 2007.
- Evelson, Boris, Colin Teubner, and John R. Rymer. *How The Convergence Of Business Rules, BPM, And BI Will Drive Business Optimization*. Forrester Research, May 14 2008.
- Gualtieri, Mike, and John R. Rymer. *Best Practices in Implementing Business Rules*. Forrester Research, October 3, 2008.
- Taylor, James, and Neil Raden. *Smart (Enough) Systems: How to Deliver Competitive Advantage by Automating Hidden Decisions*. New York: Prentice Hall, 2007.

FICO white papers available at decisions.fico.com:

- What's the Payback on Connected Decisions?
- An Architecture for Smarter Decisions
- A Five-Step Approach to Stress Testing Your Portfolio
- Achieving Decision Consistency Across the SOA-Based Enterprise
- The Business Case for Decision Management
- A Systematic Approach to Smarter Decisions
- Beyond BI: Building Intelligence Into Your Operational Decisions

The Insights white paper series provides briefings on research findings and product development directions from FICO. To subscribe, go to www.fico.com/insights.

For more information

US toll-free

+1 888 342 6336

International

+44 (0) 207 940 8718

email

info@fico.com

web

www.fico.com