



Rewarding R&D

Market turmoil means stepped up pressure for technology development.

The mortgage industry is emerging from an unprecedented crisis that has seen lending giants disappear, the collapse of private label securitization and the biggest foreclosure volume in history. Nobody yet knows what will become of Fannie Mae and Freddie Mac, or how long they will continue to exist at all. Amid all this turmoil, nearly every agency involved in regulating mortgage lending is proposing or implementing new rules and compliance standards. How has this affected mortgage technology providers? Plenty, as is to be expected.

BY TED CORNWELL

Even as the Great Recession has diminished their own business volume in many cases, technology firms are scrambling to enhance software or build new systems that will help their lender clients navigate an environment where there is still widespread uncertainty about what to expect and how to comply with changing rules and regulations.

A Focus on Control

Walt Coats, CEO of BrokerPriceOpinion.com, said that five years ago, research and development focused on technology that would reduce turnaround time. Today, R&D is focused on quality control.

Coats said his company, a provider of property valuation services, invested a couple of million dollars into R&D a couple of years ago—despite the downturn in mortgage lending activity—to upgrade its technology. He believes flexibility is key to keeping up with a changing regulatory environment.

“One thing I have learned is that the way we are doing things today may not be the way we do them next year or even in three months,” he said.

The new focus on quality control means that validations and verification are more important than ever when it comes to analyzing the value of collateral. For instance, a lender’s rules might require that the comparable home prices used to support a BPO need to be from homes within half a mile of the subject.

How does one police that rule? One problem faced in the BPO valuations world is that real estate brokers may adjust numbers or figures just to meet the compliance standards.

“We put in a tool to capture every change the agent makes after he has entered the original number,” Coats said. It red flags data that might have been fudged to meet a compliance metric rather than correcting an error.

And geocoding can now be used to make sure comparable sales used to support a valuation are appropriate as well, ensuring that the most appropriate comparables—a house recently sold next door, for instance—aren’t being overlooked to massage the agent’s price estimate. BrokerPriceOpinion.com has developed a system of “relative ranking” of comparable prices to ensure that the best comps are used.



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Gary Ferguson, IT manager at BrokerPriceOpinion.com, said the changing rules and regulations for property valuation service providers make it essential to maintain software that is easy to update when requirements change.

“That’s why we have made it so flexible, because you never know when someone is going to come out with a new rule or concern,” Ferguson said.

Mark Linné, executive vice president at AppraisalWorld, said that over the past five or six years, there were mostly just incremental changes on the appraisal form software, but that is changing because Fannie Mae and Freddie Mac have created uniform data standards for appraisals. Currently, AppraisalWorld’s parent company, Bradford Technologies, has 15 engineers working on different aspects of meeting those new challenges.

But Linné believes a key challenge for R&D is to “think outside of the forms” so that appraisers are providing a service beyond just form filling.

“Let’s not worry so much about the form but create technology that would let appraisers do a better appraisal and then push that analysis into the form,” Linné said.

That requires more advanced analytics. AppraisalWorld’s Collateral Valuation Report is in a sense a blend between a traditional appraisal and an automated valuation model.

The company developed regression analysis using the data that has become increasingly available in recent years to reduce the time it takes to complete appraisals, while still improving their accuracy.

That regression analysis is becoming increasingly popular with clients, Linné added. “I just felt it was one of those things where if we build it, they will come,” he said. “You innovate when your competitors aren’t and you take chances when others aren’t.”

Linné believes that smaller companies have an edge when it comes to developing new technology. “I think innovation from within a large company is really difficult to implement. Innovation isn’t popular within a big company.”

The most innovative new ideas in R&D often come from “the fringe” and outside the appraisal industry, he said.

“If you just read appraisal stuff it is a little insular. I see a lot of ideas outside of our industry that have a lot of applicability,” Linné added.

Across the mortgage industry, he says the loan data standardization being promoted by the government-sponsored enterprises should open the door to new product development and enhancement that could have a “trillion dollar” impact on the economy as tools are developed to take advantage of new data.

“We are at the very beginning of seeing a flurry of investment in R&D,” Linné believes.

A 'Responsibility to Share'

Many participants in the mortgage software business believe that customers need to be closely involved in R&D activity. Avi Naider, CEO of Fort Lauderdale, Fla.-based ACES Risk Management Co., or ARMCO, said the R&D that went into creating a Web-based platform for doing audits and quality control required widespread collaboration with potential users.

"The reason we don't charge for customer support is that we actually want our customers talking to us," Naider said. "Our R&D process is basically entirely driven by customers."

More recently, the foreclosure crisis and financial collapse in 2008 have permeated the way technology providers look at evolving needs, he said.

"One of the things everyone realized is that there just was not enough communication going on between the origination side and the quality control side," Naider said. As a result, findings made by a quality control team might not filter through to the origination people for 90 days or more. Now, ARMCO has a real-time connection between QC and origination.

"That's not something that existed a few years ago, and it was entirely market driven," Naider said.

Christine Kirby, CEO of document provider MBS ProClose, says R&D requires anticipating what clients will need in the future without getting too far ahead of market adoption.

"What we have to do is manage a delicate balance between what the client wants and needs and also keep our ear to the ground on what's the latest and greatest technology," she said.

She said the company's proprietary "dynamic signature" offers an example of how ProClose approaches upgrading its systems. The change was made because the company got calls from closers who sometimes had difficulty entering long or difficult names, such as a trust or power of attorney or a non-borrower applicant, on the existing forms.

ProClose's dynamic signature reads data in the loan exactly as it is presented, no matter how long it is, and enters it exactly as presented on the appropriate forms.

ProClose also is working with clients to develop new testing, triggers and switches that prevent lenders from making mistakes on loans.

But one risk with R&D, Kirby said, is that a company may invest money in new technology that is ahead of what the industry is ready to adopt.

She said one of her competitors in the doc prep world went out of business largely because it spent heavily developing electronic signature capabilities before lenders were ready to embrace the switch to e-sign and the use of paperless documents.

"There are lots of things that need to recover in this industry before people focus on digital signatures," she said.

She said industry conventions and trade shows often prompt calls from clients inquiring about the latest technology they have learned about. But ProClose is careful not to jump on the bandwagon until the industry is ready to embrace and actually implement those new technology innovations.

For example, despite the enthusiasm for "cloud computing," she said most of her customers still prefer to install ProClose software in a client-server environment instead of having the vendor host the software.

"You might think everyone would want Web-based solutions, but more than 50% of our clients still want to install the product, Kirby said. "That's true even for new clients."

Despite the slow adoption rates, Kirby said she shares the enthusiasm for working with clients on R&D initiatives. And she says that in working with clients, ProClose wants to be sure that all parties learn about the implications associated with changing rules and guidelines.

"There should be a social responsibility to share," she said.

Agility Counts

Changes in the industry have forced tech vendors to adapt their applications quickly, and many agree that a traditional R&D process that takes six to twelve months to bring enhancements to market is now too long and has become obsolete.

Mark Todd, product development manager of San Diego, Calif.-based Del Mar DataTrac, said the company benefits from its agile software development environment, which allows iterations to be made quickly to systems.

In a traditional software engineering environment, R&D occurs in a "waterfall" development environment, with developers coming up with a list of requirements, passing that on to engineers, who then pass their work on to quality assurance staff.

The final product is then returned to the "list makers" and eventually released to customers as a new upgrade to the technology.

Instead of spending months writing up requirements and working with mock screen shots, the agile strategy Del Mar DataTrac employs allows executives and designers to sit down with engineers and develop new features quickly through a more collaborative back and forth process.

"What's neat about being agile is we can do a release every six weeks and add features every few weeks, and over time you add a lot of new features," he said.

"We are not in the middle of this huge six-month cycle. We're in the middle of a three- or four-week cycle," Todd added.

One thing DMD did for a recent project was bring in a "user experience expert" with a background at Microsoft to help guide the development of a major new release. The project lasted about 11 months, said DMD President Rob Katz.

"His ideas were brilliant. They put us on a path that was very different from what we were originally going down," Katz said.

That consultant did things like sit down with client users, including underwriters, funders, doc prep staff and provide a “fresh eyed” perspective on what type of navigation and controls people liked. That feedback guided screen layout, the use of the keyboard versus a mouse, and other decisions key to new software development.

Once prototypes were built out, the consultant came to DMD’s annual June client conference and took video recordings of users testing the new software. By watching facial expressions and other user responses, the system was further redesigned.

“It was very fun watching people scowling and scratching their heads. One of my personal pet peeves is having a bad user experience,” Katz said, adding that software can have powerful functionality and still not be user friendly. “I don’t want my software to get in the way of anyone doing their job.”

Todd said social networking has also enhanced client feedback on R&D activity. In addition to the user conference, DMD has created a “virtual user group” network online.

Much like Facebook, the online site allows users to register what suggestions they like by “attaching” to them. DMD actually ranks or scores possible issues for R&D by how many clients are “attached” to the issue.

“The way they talk to each other in a more relaxed social setting gives us another dimension of insight into what is going through our clients’ minds,” Todd said.

Titan Lenders Corp., a provider of closing, post-closing and fulfillment solutions, has relied on a partnership with eSys Technologies in its R&D strategy.

The company opened its doors in 2007. CEO Mary Kladde is a big advocate of industry standardization when it comes to data and images, a factor that looms large in recent R&D activity.

“We still have issues matching data with the paper that is actually produced,” Kladde said.

Ruth Lee, EVP of sales at TLC, says the company’s agile architecture doesn’t require huge IT investment each time changes are made, allowing Titan to serve as an incubator for its clients as they adapt to the new regulatory and business environments.

Lee said that lack of transparency and standardization contributed to the mortgage crisis, because too often originators, funders and investors weren’t aware of what others were producing.



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“It was death by a thousand paper cuts, because you couldn’t really see what was going on in every dark corner,” she said. “If you are looking for investor confidence and non-government securitization, there can’t be short cuts. It has to be done right every single time with consistency,” Lee said. “A lot of the reason there is so little confidence is because investors don’t know what they are buying.”

Tony Young, director of financial services solutions at Pegasystems, a Boston-based provider of business process management software, said the industry’s crisis gave Pegasystems an opportunity to break into the mortgage space, where many companies had been relying on entrenched legacy technology for decades.

“We viewed the credit crisis as a build for change moment for Pegasystems. There is an opportunity now. People have to change,” Young said. Lenders faced with broken loan portfolios and costly buy backs need to find better ways to control quality.

“The technology that lenders have been using for the last 20 years is what got them into that mess,” he added.

Michael Smaney, a representative in Pegasystems’ financial services solutions group, said the company’s approach to R&D is different because it doesn’t focus on data when developing frameworks for new applications.

Smaney said that the focus in developing new innovations is first on the processes that need to be created.

Once the processes have been ironed out, then the data comes into play as the new technology is refined.

Young said Pegasystems’ development of new applications for mortgage lenders benefits from frameworks created for other sectors the company serves, like health care and insurance.

For example, half of the architecture needed for the company’s new loan origination framework were derived from applications found in Pegasystems’ insurance product, he said.

Young also embraces agile software development, with its focus on interaction and improvisational teamwork, sometimes compared to a rugby “scrum,” as a team works together passing the ball back and forth to move it downfield.

Both Young and Smaney disagree with the notion that large technology firms necessarily lose touch with innovation. They say Pegasystems builds upon a heritage of innovation.

“Data centric development isn’t going to solve a process problem,” Smaney said. “I think in three to five years, the market, especially from a technology perspective, will not look like it does today.” **MT**