

Supercharged Lending

To grab share in a white-hot housing market, more lenders are turning to AI



A Hot Market Poses Challenges for Lenders2

To the Barricades! The Digital Revolution Is at Hand..... 3

The Problems Facing Lenders that AI Solves 5

The Cultural Shift that AI Demands 7

Algorithm-izing Human Decisions..... 9

The InRule Advantage 11

A Hot Market Poses Challenges for Lenders

The housing market is on fire. In June 2021, U.S. home prices leaped 24.8 percent year-over-year, according to Redfin, to a median price of \$386,888. During the same period, the number of homes sold rose 20.6 percent. Mortgage rates, which dropped to record lows during the pandemic, also declined. The 30-year fixed-rate mortgage stood at 3.02 percent as of June 24; by July 22, it had fallen to 2.78 percent.

How long this torrid pace will last is anyone's guess, and there are concerns that a spiraling inflation rate or hard to predict the new Covid-19 variant could trigger a sudden slowdown. For mortgage providers, this poses two immediate challenges: The first is to service as many loans and snag as much market share as they can while the boom continues. And the second is to be able to react immediately to any sudden shifts in the market. What growing numbers of bank and nonbank lenders are discovering is that artificial intelligence, including machine learning and automated decisioning, make it possible for them to do both.

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Source: Redfin, June 2021



To the Barricades! The Digital Revolution Is at Hand

Mortgage lending is in the midst of a revolution—and it will be fought with machine learning algorithms and automated decisioning.

Intensifying competition is the number one reason why. For example, nonbank mortgage lenders issued 68.1 percent of all U.S. mortgages originated in 2020, up from 58.9 percent in 2019. These lenders now include seven of the country's 10 biggest mortgage lenders per data collected by Inside Mortgage Finance, an industry research firm. This puts traditional banks under pressure to recoup their lost market share--something that AI-based solutions can help them do.

But there are other reasons that banks, as well as nonbanks, are rushing to embrace AI. Chief among them:

- **Customer expectations have changed**, especially among millennials. Borrowers no longer see a need to meet face-to-face or speak to someone over the phone to apply for a mortgage. Instead, they want to arrange a loan the same way they handle all of their other financial transactions—using a mobile device at a time and place of their choosing. In response, customer self-service is becoming the norm at many lending institutions, and this is primarily a decision automation-driven process, enhanced by machine learning.
- **There is pressure to compress the loan lifecycle.** Next to the rate they receive, borrowers care more about how long they have to wait to be approved than anything else. If lenders want happy customers and the referrals they bring, they need to shorten their approval times.

Going forward, a faster loan cycle will be key for top-line growth. With both the Mortgage Bankers Association and Fannie Mae predicting that refinance loans will fall to about

Among the top 10 mortgage lenders in the U.S., only three are traditional banks.

25 percent of total mortgage volume next year, lenders will need to compensate by closing more purchase mortgages. They can only do this, however, by helping their loan officers become more productive, empathetic and aware of what's driving the transaction—which will help them close loans more quickly. This makes automating portions of the process a major imperative.

- **Eliminating bias has become a key focus.** It has taken a very long time, but the finance industry finally recognizes the opportunities inherent in serving the underserved. However, this requires moving beyond social prejudices that some borrowers are less worthy of home financing than others. While ML algorithms and automated decisioning do not guarantee bias-free lending practices (and can actually exacerbate them if improperly implemented), AI technologies that deliver actionable explainability can provide a solid foundation for a loan process that is ethical and transparent.



The Problems Facing Lenders that AI Solves

Lenders today have a people problem. They simply don't have enough loan officers to service all of the loans they hope to close.

"The mortgage business is feast or famine," explains Cecilia Janson, a partner and Chief Delivery Officer for the mortgage industry consulting firm BlackFin Group, "and right now the market is red hot. Lenders are trying to take advantage of this and close all the business they can. But for their staffs, the increased loan volume is leading to burnout and underwriter exhaustion."

If lenders can't find, train and hire enough qualified people, Janson says, then they need to rely on automation instead.

Enter AI, which provides the basis for automating complex decision-making. These technologies offer numerous benefits for lenders:

- **Increasing loan officer productivity** is the key to growing market share. AI-driven automated decisioning helps account managers and underwriters process more loan applications, more quickly and with less risk. With the right decision platform in place, many of the activities involved in loan origination, closing and servicing can be readily automated, saving loan officers significant time and effort. These include many decisions related to eligibility and documentation, providing the basis for a fair, transparent and bias-free lending process.

With AI-enabled automation, error-prone manual processes and inflexible, difficult to change hard-coded business rules are exchanged for reliable, transparent and flexible processes that any knowledgeable user can easily adjust.

“Increased loan volume is leading to [staff] burnout and underwriter exhaustion.”

— Cecilia Janson,
Chief Delivery Officer
BlackFin Group

- **Providing customer self-service** has become essential to meeting borrower expectations and shortening cycle times. Self-service portals and mobile apps provide the flexibility customers want, while the heavily automated origination process collapses loan approval times and lowers processing costs. This relieves bank personnel from many manual tasks, freeing skilled staffers to focus on more high-value initiatives. It also lays the groundwork for straight-through processing, which has the potential to radically streamline workloads by automating routine processes, such as document sharing and compliance sign-offs.
- **Shifting from loan tracking to loan predicting** allows lenders to anticipate which loans will be approved much earlier in the lending cycle, and what factors will keep a borrower more engaged during the process. This enables them to fast-track those loan applications with the greatest potential and is among the most promising uses of machine learning-based predictive analytics.

Predictive analytics can also project outcomes against key performance indicators and then make midcourse adjustments where needed. These and other analytics functions allow the lender to fully use all the customer and market data it collects. Failing to leverage that data means squandering an enormous opportunity, whereas utilizing it to the fullest can provide a significant competitive advantage.

The Cultural Shift that AI Demands

Many lenders have been caught flatfooted by the current shift in customer expectations. Their operations remain centered on manual processes and call centers at a time when a new generation of borrowers is no longer interested in speaking with someone to apply for a mortgage. Instead, these digitally savvy consumers want to use their phones to apply for it themselves. They want a simple, transparent lending process that is free from bias. And, most of all, they want to know if they will qualify for a loan in minutes—not days.

For the lender, this means transforming their linear, call center-centric process—where one loan is handled step-by-step at a time—into a multichannel digital operation, where loan officers can simultaneously push forward multiple loans in parallel. What they are discovering, however, is that they can't simply buy their way into this new way of doing things. To truly transform their business requires a cultural change on the part of the lender.

“The question confronting lenders is “how do we engage with customers in a wholly new and different way?,” says Chris Berg, Director of Digital Acceleration at InRule Technology®, a provider of AI-enabled automation technologies. “There is tension between traditional and nonbank lenders, and to remain competitive traditional lenders need to do more than just add to their technology stack.”

In today's hyperactive mortgage market, Berg asks, how can a lender stand out from the crowd? By offering better rates? Financial realities make that highly unlikely. Through more original and better targeted marketing? Regulatory restrictions make that a difficult proposition. Through the point-of-sale experience that they provide? If all the lender has to offer is an online portal, it will quickly discover that its customer experience is not much different from anyone else's.

“To remain competitive, traditional lenders need to do more than just add to their technology stack.”

— Chris Berg,
Director of Digital Acceleration
InRule

As non-bank lenders have already discovered, “A better answer,” Berg says, “is for lenders to engage with their customers in a wholly new and different way.” AI-based decisioning makes this possible, he adds, but only when the lender’s organization embraces it across the board. And this, he emphasizes, requires new processes and a willingness to change—as well as new technology.

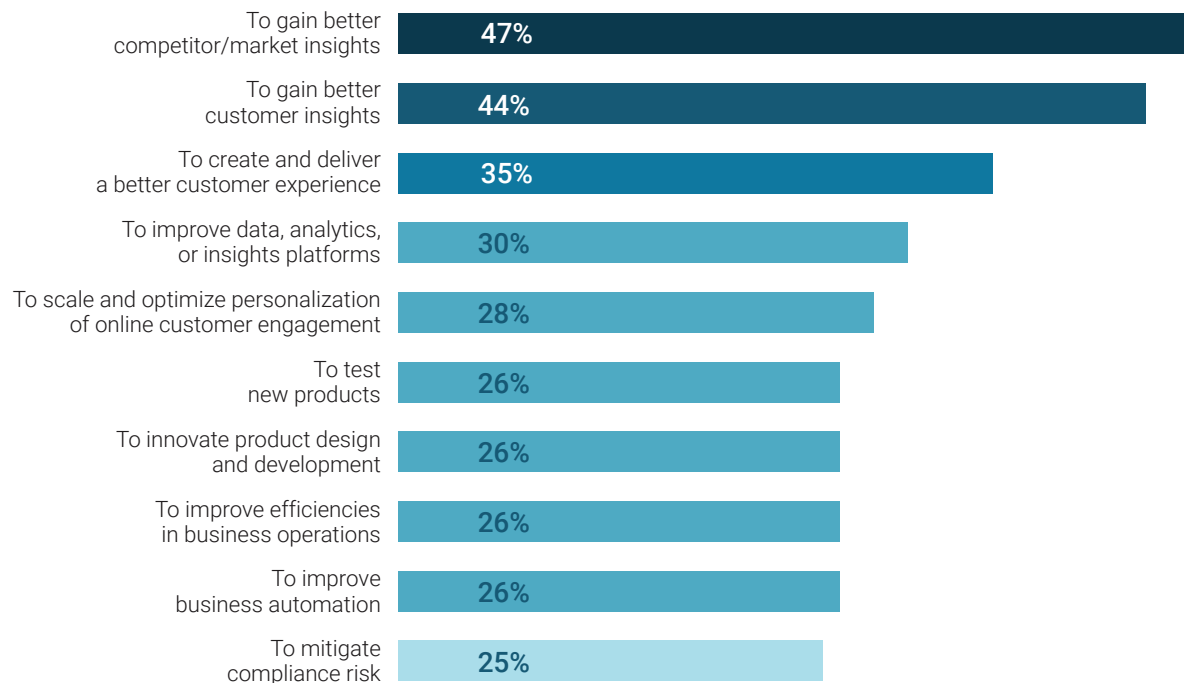
“User adoption is the key challenge,” concurs BlackFin’s Janson. “Loan officers on the front line don’t always trust the AI system’s outcome.”



Algorithm-izing Human Decisions

One reason for the reluctance on the part of bank personnel is the persistent myth that AI will eliminate jobs and render human decision makers irrelevant. In a recent Forrester Research survey of 302 lending institution decision makers with responsibility for AI-related technologies, 64 percent reported that fear about job security is the biggest stumbling block they face when it comes to getting their organization to embrace a digitally centric culture.

For which of the following use cases/application scenarios is your firm planning to use or currently using AI technologies? (Top 10 shown)



Base: 302 US application development and delivery decision-makers with knowledge of business rule management tools
Source: A commissioned study conducted by Forrester Consulting on behalf of InRule, March 2021

The reality, however, is just the opposite. As demonstrated by numerous use cases, AI-driven automation and decision support doesn't eliminate the need for loan officers—rather it enhances their decision making capacity, making them more productive and less prone to error. As an outgrowth of this, loan officers can:

- **Deliver a better customer experience** by providing self-service capabilities and accelerating loan approvals.
- **Capture additional market share** by scaling loan volumes and rapidly testing new products.
- **Reduce risk and adapt to new market** conditions by adjusting business rules on the fly.
- **Ensure regulatory compliance** by creating a digital paper trail and baking compliance checks into business rules and workflows.
- **Reinforce fair lending practices** by documenting decisions and using transparent algorithms.

To turn hesitancy into enthusiasm, lenders must also promote the understanding that AI doesn't learn by itself. As Forrester noted in its report, "AI models are imperfect and need monitoring and retraining. [They] leverage data from the past to make predictions about the future, [but] as the world, the market and customers change, these models must be retrained [if they are] to continue to maximize business value."

This is what Berg means when he says that AI adoption is about more than just technology. Decision platforms can supercharge growth and make lenders more competitive—but only when piloted by knowledgeable personnel.

“People are less tolerant of an algorithm’s mistakes than of their own – even if their own are bigger.”

– Hannah Fry,
Author

[Hello World: Being Human in the Age of Algorithms](#)

The InRule Advantage

The approval process for nearly 50 percent of U.S. mortgages originated in 2020 were powered by InRule. Lenders turn to the company for its software technology, which allows them to quickly respond to changing market conditions and jump on new opportunities, while reducing risk. The InRule platform does this by automating decision logic and providing value across the loan lifecycle, including:

- Loan origination, documentation and customer self-service.
- Approval decisions related to income, key ratios and credit rating, as well as other factors.
- Part or all of the underwriting process, including consideration of credit reputation, debt capacity and quality of collateral.
- Closing procedures, such as the routing of documents and ensuring compliance with disclosure requirements.
- Routine loan servicing tasks, such as determining payment status and delivering statements.
- Cross-selling and upselling customers by automatically notifying them of rate changes, new products and other money saving opportunities.

But perhaps the biggest advantage of InRule over other automation platforms is that it provides complete transparency into how the decisions are being made. Most machine learning technologies operate as a kind of mysterious 'black box.' Not so with InRule which provides machine learning-based predictions with the why[®] and delivers insights into the factors that influenced a prediction. Additionally, InRule does not require coding skills to access and modify business rules that determine the outcomes of automated decisions.

In 2020, the approval process for 1 out of 2 U.S. mortgages was powered by InRule.

Such accessibility solves a fundamental problem for many banks, where “AI is very much on the radar,” reports BlackFin’s Janson, “and everyone is talking about it. But they aren’t sure how to work with it yet.” InRule demystifies the process—so that even as they hand some decisions off to the machines, the lender’s loan officers remain firmly in control.

inrule

Lenders around the world rely on the InRule to automate mission-critical enterprise decisions.

In fact, in 2020 over 2 million mortgages in the U.S. were originated by lenders that powered their loan business with InRule.

Since 2002, leading firms have relied on InRule to empower technical and non-technical users to manage complex business decisions—without code.

Learn more by visiting: inrule.com/industries-customers/financial-services

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