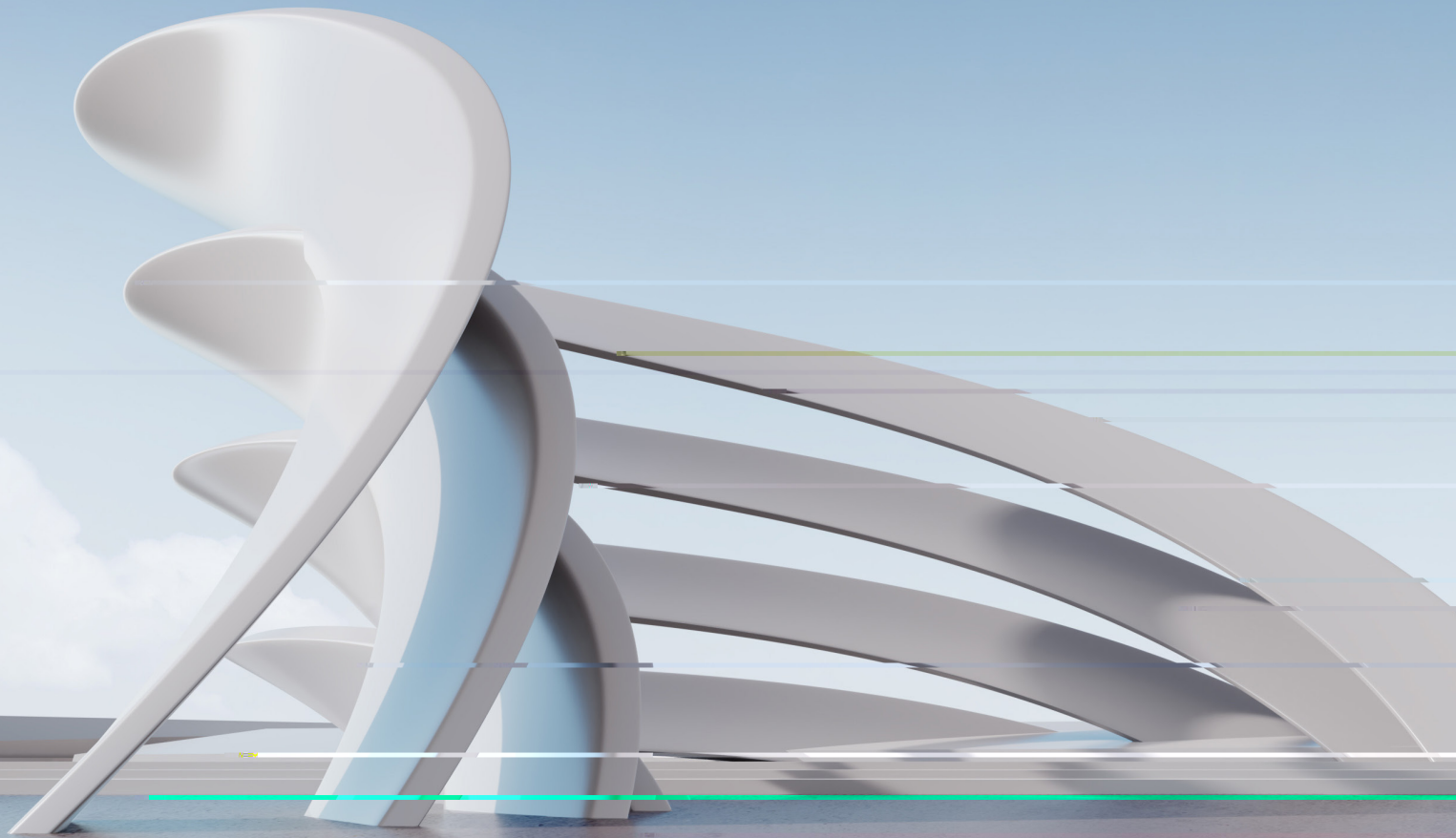
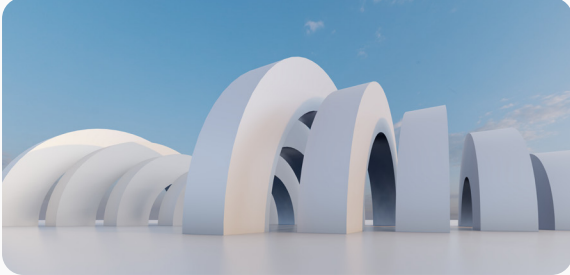


Transforming Retail Mortgage with AI

A New Era in Banking

March 2023





01

A Look at the Evolving Landscape of US Retail Mortgages

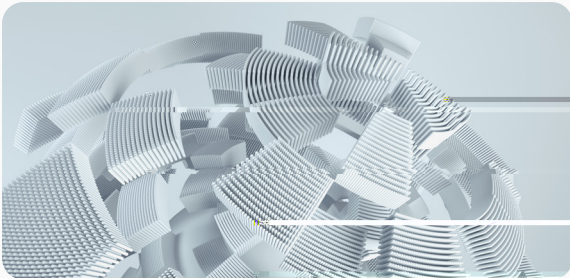
AI and ML are revolutionizing the retail mortgage industry, improving efficiency, increasing revenue, and providing better customer experiences.



02

The Future of Mortgage Operations: AI and ML at the Forefront

Digital transformation has changed customer expectations for real-time, personalized experiences; the lending industry is no exception.



03

Real-life Applications for AI in the Mortgage Industry

AI has several real-life applications in the mortgage industry, identifying qualified borrowers and underwriting, improving lead conversion, increasing cross-selling, and more.



04

Put AI to Work for Your Business

As businesses in the financial industry adopt AI-driven technologies, partnering with an experienced and reliable technology provider is crucial to help you leverage these innovations to fuel your business outcomes.

Introduction

Merriam-Webster dictionary defines the American dream as: "a happy way of living that is thought of by many Americans as something that can be achieved by anyone in the U.S., especially by working hard and becoming successful." One of them is a "nice house." Converting the dream of buying a nice house through the mortgage processes to make it your home can quickly become overwhelming and stressful. It's a big investment and a key life decision for many.

It starts with engaging with your family to make decisions such as the city, the neighborhood you prefer based on your lifestyle, credit rating, budget, whether it works as your family grows, quality of the school, entertainment, driving time to work, etc. On the other hand, you need to work with external stakeholders such as realtors, attorneys, insurers, and inspectors and shortlist the mortgage companies. This can be an emotional, frustrating, and draining process for many first-time buyers whilst working with many stakeholders having a specific role in this process. The buyers endure a long engagement cycle of months till the transaction is completed.

A Look at the Evolving Landscape of US Retail Mortgages

The mortgage market is a critical component of the US economy, contributing approximately [10% to the gross domestic product \(GDP\)](#) through the real estate housing sector. The American Housing Survey (AHS) has revealed that the average household mortgage debt has surged from \$5 trillion to \$11 trillion, with 58% of American households carrying mortgage debt. Additionally, the average household mortgage balance has steadily increased and reached [\\$223,952 in 2021](#).

However, predicting mortgage market trends has become increasingly difficult due to past events like the 2008 subprime mortgage crisis and the recent pandemic. Despite this unpredictability, one certainty remains - the mortgage ecosystem is evolving and adapting to new buyer behaviors and emerging technologies.

Over the past decade, the traditional dominance of big banks in the lender ecosystem has been challenged by a new wave of digitally-native, non-bank lenders. These disruptors have altered the lending industry's business model and cost structures, which is expected to **generate over \$2.25 trillion in loans in the coming years - a 40% increase since the previous decade, according to Fannie Mae.**

The changing landscape of borrower personas has also played a role. Modern borrowers seek a seamless digital experience through various channels, preferring self-service tools and information that can aid their decision-making. They expect transparency, responsiveness, and shared values from their lenders.

This whitepaper will explore how artificial intelligence (AI) and machine learning (ML) are revolutionizing the retail mortgage industry, improving efficiency, increasing revenue, and better customer experiences.





Real-life Applications for AI in the Mortgage Industry

A recent study by [Fannie Mae's ESR](#) (Economic and Strategic Research Group) mortgage lender sentiment survey to better understand lenders' views about AI/ML revealed that "Most lenders (63%) say they are familiar with AI/ML technology, but only about a quarter (27%) have used or tried AI tools for their mortgage business. Nearly three-fifths of lenders (58%) say they expect to adopt some AI solutions in two years."

Here are just a few of the ways that lenders are applying AI to compete at a higher level:

- ❖ Identifying qualified borrowers and underwriting
- ❖ Improving lead conversion
- ❖ Increased cross-selling
- ❖ Proactive business risk management
- ❖ Improved document management
- ❖ Streamlined processes
- ❖ Improved customer and employee experiences

Identifying qualified borrowers and underwriting

To reduce risk, lenders spend hours reviewing financial statements, tax returns, credit reports, and other data to assess risk and determine loan amounts and interest rates. It's a time-consuming and imperfect process that can often take weeks.

Increasingly, lenders are applying AI algorithms to do this work for them, using machine learning algorithms designed to analyze vast amounts of data and relevant information about a borrower. The algorithms can identify patterns and predict a borrower's likelihood of defaulting on a loan. This information can then be used to make more informed decisions about approving a loan and at what interest rate.

Furthermore, AI enables organizations to automate many of the tasks involved in underwriting. As one of the more critical steps in the mortgage process, traditional underwriting lacks the tools to organize missing or incorrect information collected during the preceding step. Enter Intelligent Character Recognition (ICR), a tool that automatically reads and captures data from varied formats, facilitating smart validation to ensure automated data completeness.

Improving lead conversion

The mortgage industry is highly competitive and traditionally has a low lead conversion rate. Modern customers seek instant responses, not to mention personalized experiences. But it takes valuable time and money to assess lead quality and follow up.

That's why lenders and loan officers leverage AI to qualify leads and convert them into customers. An AI-powered system can quickly scan large data sets and identify the most promising leads based on criteria such as credit score, income, and employment status. This can save loan officers significant time and effort, allowing them to focus on the most promising leads and convert them into customers more efficiently. Moreover, AI tools enable companies to respond to queries immediately, increasing the chances of lead conversion.

AI can also help with mortgage lead conversion by personalizing the customer experience. By analyzing data on a customer's browsing behavior, preferences, and other factors, an AI system can tailor customer interactions to improve the likelihood of conversion. This can include sending personalized emails or text messages or making personalized recommendations for loan products based on the customer's needs.

Increased cross-selling

Cross-selling across a lender's portfolio of products is an efficient way of driving additional revenue, strengthening customer relationships, and driving loyalty. At the same time, cross-selling takes time and can be expensive.

By analyzing a customer's financial history, spending habits, and other data points, AI solutions can create a detailed customer profile and identify products or services that might appeal to individual customers. For instance, if a customer has recently made a large purchase, they may be a good candidate for a home equity loan or line of credit. This data enables mortgage lenders to identify potential cross-selling opportunities and customize their approach.

Predictive analytics allows companies to anticipate future customer behavior. For example, if a customer has a high credit score and a stable income, a mortgage lender may predict that they are likely to refinance their mortgage sooner. Lenders can proactively reach customers and offer customized financing options by identifying these potential opportunities.

i k m l e i b e d e k d

From market and interest rate volatility to shifts in the housing market to regulatory compliance, the ability to anticipate and minimize business risks is critical to success.

By analyzing large amounts of historical data, AI-powered systems can predict future market trends and help lenders to identify potential risks. This data can help lenders to make decisions that reduce risk and price loans more accurately. Plus, with AI's ability to analyze large data sets quickly, companies can spend less time and money on finding customers and more time leveraging customer data to create targeted products that sell better.

i m d g l e k e d e k d

It takes a great deal of time for employees to review and validate large volumes of Escrow documents from multiple sources and formats. Plus, such manual processes can often be error-prone, reducing overall quality.

AI can automate and streamline the paperwork involved in the escrow process. Using natural language processing (NLP) and machine learning, AI systems can automatically extract relevant information from documents and input it into the appropriate fields in an escrow system. This helps improve quality, save time, and ensure faster, more efficient processing, ultimately improving the customer experience.

Additionally, AI can increase data security and decrease the risk of fraud. AI algorithms can be trained to analyze data from various sources, such as financial transactions, to identify patterns that could indicate fraud. This can help detect fraud early and even prevent it from happening in the first place.

k i e d g

Increasing efficiency and quality saves time and money and improves the borrower experience. AI can automate many of the repetitive and time-consuming tasks associated with the loan process.

By using AI to automate underwriting, pre-approval, customer care, and loan servicing processes, mortgage companies can improve efficiency and drive better business decisions while making the mortgage process faster, more convenient, and more secure for borrowers everyone.

i m d g k i e d c p d g o i e g

The lending process involves multiple touchpoints between customers and employees. Employees interface with customers to gather documentation, clarify information, provide status updates, and respond to customer inquiries.

AI can streamline and improve the quality of these touchpoints to drive a better experience for both customers and employees. By leveraging the power of machine learning, NLP, and other AI technologies, lenders can provide faster and more accurate responses to customers – leading to enhanced customer satisfaction and loyalty, which translates into augmented revenues and saved costs.

Put AI to Work for Your Business

In summary, artificial intelligence is revolutionizing the US retail mortgage industry, improving efficiency, reducing costs, and enhancing customer experience. As businesses in the financial industry continue to

As a global IT company with over 30,000 associates, Beyondsoft leverages emerging technologies and a proven delivery method, enabling customers in every industry to take an agile and forward-thinking approach to business. For the past 27+ years, Beyondsoft has provided a broad range of high-quality IT services, including cloud, big data and analytics, business process outsourcing, custom software solutions, test automation, digital enablement, and other software engineering and digital transformation services.

E42's AI workers offer human-like personalized communication, 24/7 availability, multi-channel integration, predictive analytics, and automation. E42 can help lenders automate various tasks across the process, building stronger relationships with their customers and increasing customer satisfaction. By enabling automation from qualification, document processing, and onboarding to sales, marketing, and customer service – E42 ensures that organizations only need to handle the end decision-making process. E42 AI workers are built to provide customers with instant query resolution and guidance across channels around the clock.



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