ANALYTICS

Polygon helps shape lending strategies

Boutique mortgage analysis expert uses Qlik Cloud
to deliver critical market intelligence

Qlik Q

RESEARCH
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Greg Oliven, CTO, Polygon Research

Security, stability and a home

For many, home ownership is one of life's big ambitions. It provides security, stability and most importantly, a place to call home, often through years of hard work and financial commitment. And the way most people achieve this is through a mortgage.

According to the US Census Bureau, about 40% of US households carry a mortgage; as a result, the mortgage market is a behemoth of the global financial services industry. The total outstanding mortgage debt on US mortgages alone is approaching some $11.39 trillion.

It is also an industry that depends heavily on data. Whether it's a prospective borrower analyzing their options, a lender assessing the market or a broker looking to link these two parties together, most critical decisions are ultimately based on numbers.

Unlike some industries, much of the immense volumes of data generated by the mortgage industry are freely available in the public domain. However, huge swathes of figures can only say so much in isolation; the real value is in how they are analyzed, cross-referenced, presented and interpreted.

Solving the last-mile problem

Polygon Research's mission is to turn this data into actionable market intelligence. Specializing in the US mortgage market, the boutique business's clients include mortgage brokers, think tanks, non-profits, government-sponsored entities (GSEs) and fintechs. Its primary target market, however, is the 4,400 mortgage lenders in the US. Most Polygon clients tend to be larger lenders at the upper end of the national scale, but it also serves regional and local institutions.

"We focus on open data," explains Greg Oliven, CTO at Polygon Research. "These datasets are freely available, and usually curated and published by the US government, but they're too large and unwieldy for a spreadsheet on a laptop to handle."

Solution Overview

Customer Name
Polygon Research

Industry
Financial Services

Geography
USA

Function
IT, Marketing, Sales, Supply Chain Management

Business Value Driver
Customer Intelligence, New Business Opportunities, Reimagined Processes

Challenges
- Process vast quantities of publicly sourced data
- Convert data into actionable market intelligence
- Incorporate high-power analytics into a startup's offering

Solution
Qlik's OEM solution gave Polygon Research an opportunity to incorporate high-power analytics tools into its bespoke customer-facing platform.

Results
- Customers can now base analysis on 250 billion lines of data
- Dashboards deliver analysis based on multiple sources
- Machine learning enables predictive analytics

"They're there for public use and consumption, but there's that last-mile problem. That's where we come in."

Polygon had tried other analytics tools but ran into two key problems: the complexity of the datasets being processed was simply too great, and the volumes being produced were too high as the business's client base grew. Oliven had first encountered Qlik® in a previous role, and in 2018 decided to try Qlik Sense® out with a typical Polygon workload.

"The first thing I noticed was how easy it was to get started," he recalls. "But when I realized the power of Qlik Cloud's modeling capabilities, that's really what locked us in. We haven't looked back since."

The power of the platform

Another important aspect that attracted Oliven to Qlik was its OEM program, which allowed Polygon to incorporate Qlik into the business's broader customer-facing platform.

"The OEM option showed us that Qlik was a company that cared about small start-up companies like Polygon Research," Oliven notes. "It gave us a commercially viable vehicle for tapping into the power of the Qlik platform and offering it to our customers."

Qlik Cloud quickly became central to Polygon's offering, using it to pull in multiple disparate monthly or annual datasets based on parameters such as lender, time frame or geography, and present them as a unified offering in easily accessible and understandable formats.

"Key to some of our lending use cases is being able to show transaction data in context," says Oliven. "What's going on in a particular community? How many bank branch locations are there? What are the deposit levels? We're providing a view of transactions in contexts that lenders, citizens and regulators care about."

The dashboards and analysis also give lenders insights into their own performance and how it relates to their competitors and peers, and the wider market.

"Lenders can choose peer groups and see how they're competing in very specific markets; that's the power of Qlik in the cloud," Oliven adds. "There are over 100 filters that allow our users to drill down into segmentation details such as loan and lender properties, competitors' applicants and property or geographical attributes. They can filter very narrowly, see how they stack up in any given market and build strategies around that."

Polygon now has seven Qlik apps in its suite, and also offers application programming interface (API) access and custom analysis. Importantly for the business, machine learning has also come into the picture.

The strength of prediction

While drawing from primary data sources and then understanding the relationships between them is delivering high-value information to Polygon Research, its customers and the broader market, Oliven is particularly excited about Qlik AutoML and the possibilities it offers for predictive analytics. It is also an area he has been exploring in a data science class he teaches.

One use case that both Polygon and his students have been focusing on is loan prepayment – either voluntarily through refinancing or involuntarily if borrowers find themselves in difficulties. Based on information provided by Qlik AutoML in the cloud, lenders can then make appropriate interventions, for example by offering refinancing or loan modification options.

"This is where AutoML really shines," says Oliven. "You can get down to individual loans, see the percentages on every single variable and then see the cumulative decision: is this borrower going to prepay or not? What's the prediction? And what's the strength of that prediction?"

Also complementing Polygon's offering is Qlik Reporting, which the business uses for a group of lenders that specialize in lending to military veterans so they can ensure that their performance is at least as good as the market leaders.

"For example, we use Qlik scatterplots to show loan costs against interest rates," Oliven explains. "The reports are an efficient way to get information out to their large number of members month over month, as opposed to trying to get a dashboard in front of everybody."

A binary choice

For Oliven, the decision to adopt Qlik was essentially binary, and one that has paid off.

"Either you can do it or you can't, and Qlik allows us to do it," he says. "We've put a quarter of a billion rows of data at our users' fingertips and they can instantly filter and navigate through dashboards."

Polygon's next projects include building an API that gives customers programmatic access to its data, continuing to develop more apps and expanding on its use of Qlik AutoML and prescriptive projects. "That's going to get a lot easier now Qlik AutoML is live in the Qlik Cloud environment," Oliven notes.

"Our go-to-market strategy as a small, privately held company was not to write up a web interface from scratch, but to use all the amazing things Qlik provides," he concludes. "Qlik is a force multiplier for us in our go-to-market strategy."

The keys to success

250 billion lines of data available for analysis

> 100 filters available for users

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About Qlik

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. A private company, Qlik offers real-time data integration and analytics solutions, powered by Qlik Cloud, to close the gaps between data, insights and action. By transforming data into Active Intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik serves more than 38,000 active customers in over 100 countries.

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