AdvantEdge Analytics
CUNA MUTUAL GROUP

Predictive Analytics for Credit Unions

Gaining a Competitive Advantage

Members will no longer wait for credit unions to provide them with what they need. Today's convenience economy demands that products, services and solutions are served at the exact moment—or even before—they are needed.

Traditional business development tools once ruled the financial sector—credit unions included. Third party research, process improvement protocols and mass media advertising are just a few of the tactics that were once widely embraced when it came to building business and attracting new members.

The problem is, these tactics, by and large, are reactive. And today's consumers expect much more from their product and service providers.

Members will no longer wait for credit unions to provide them with what they need. Today's convenience economy demands that products, services and solutions are served at the exact moment—or even before—they are needed. And if that doesn't happen, they will find another resource.

In the financial services industry, that means a bank or a fintech.

Banks have invested tremendous resources into predictive analytics in an effort to meet the changing demands of their various consumer groups. In fact, in 2016 the industry invested nearly $17 billion[1] and is expected to spend up to $22.1 billion[2] annually by 2019. At the same time, fintechs are ravenously taking advantage of every opportunity to swoop-in and provide solutions that banks and credit unions haven't discovered yet. It's an undeniable shift in how all businesses, including financial service businesses, are gaining a competitive edge.

Why? It's all about the data.

With today's growing reliance on technology, we now have more data at our fingertips than ever before. Consumers are willing to share more, and the opportunity exists for us to leverage that data in ways once only imagined—and the more consumers share, the more convenient services become for them.

Another factor is that the ability to store and process data has grown exponentially. You can now run real-time processing for much cheaper than you could just a few years ago. New data warehouses and cloud-based applications have opened up fresh possibilities for collecting, slicing and receiving more value out of data.

Just look at some of the models that have leveraged consumer data to serve up opportunities to consumers.

Netflix

In perhaps the most popular analytics success story, Netflix has changed the way consumers expect to be entertained. Analytics transformed the company from its DVD-by-mail model to a dynamic entertainment platform that uses algorithms to serve up streamlined options that are most likely to delight users. Data is also used to develop, license and market new content. In 2013, an investment of $100 million for 26 episodes of an all-new show might have seemed like a gamble, but because their data proved there was a built-in audience for the type of programming proposed, it was a sure thing. That sure thing, by the way, was House of Cards. Since that time, sales have increased from $4.37 billion to $8.83 billion.[3]

Amazon/Whole Foods Market

Another analytics darling is, of course, Amazon. Much like Netflix, their algorithms serve up preferred content to users. But they've also completely changed the order and delivery process for ultimate consumer ease. Their latest analytics driven move is the $13.7 billion purchase of Whole Foods Market, which, according to an article in CMS Wire, "represents the coming-of-age of analytics as a true catalyst for business value" for both brands. The article states that now, "a retailer that has previously been limited by low margins can suddenly determine where to focus on growing consumer experience to better retain customers. Amazon's acquisition positions Whole Foods to be that retailer, ready to take on analytics-efficient competitors like Walmart and Target."[4]

Domino's Pizza

About seven years ago, Domino's began investing in technology that helped them understand how they could improve their consumer experience. As a result, they've made it easier than ever to order pizza. Understanding what the consumer wanted through analytics led to partnerships with Facebook, Google, Amazon and Apple for easy ordering. It also led to technology that allows consumers to track their pizza from the store to their door. The result? A 12 percent increase in domestic same-store sales.[5]

Kabbage

This innovative, online lender goes beyond credit scores by analyzing a deeper and broader set of financial data. This results in a more accurate read on financial health—and it does it all quickly and efficiently. It's better for the lender, better for the borrower and it's changing the way the lending industry works.[6]

According to an article by Jim Marous in The Financial Brand, there are a handful of reasons why credit unions must embrace the power of predictive analytics.[7] Most notably are the consumer, the mobile device and the accessibility of data.

1. The Consumer
   Experiences, like the ones listed above, have set a precedent for consumer expectations. They rely on solutions that are there when and where they need them, and are growing impatient with having to seek out solutions.
2. The Mobile Device
   According to Marous, the smartphone is the perfect digital device for the collection of insight and the distribution of real-time insights and solutions. Mobile transactions and geolocation insights are tremendous data sources for predictive analytics. Wearables and the Internet of Things (IoT) will only enhance the accuracy of insights.
3. The Data
   As discussed previously, the storage capabilities of big data have become more accessible to a wider scope of analysts. It now costs less to store data than the costs associated with deciding what data to keep—so most of it is now kept.

According to Ari Libarikian, Senior Partner at McKinsey & Company, analytics is being successfully captured, analyzed and implemented to achieve a variety of business strategies, including:

- Driving growth
- Improving consumer and stakeholder experience
- Reducing costs
- Managing risk
- Engaging employees

The ultimate opportunity for credit unions is to solve the same business problems credit unions have always wrestled with.

"Whether it's figuring out which members to target or how to segment members or how to reduce churn of members of the credit union, all of these age-old problems are now able to be solved much more effectively and efficiently by leveraging data analytics," said Libarikian.

And the time to leverage analytics is now.

"…one that enables value capture across the full value chain of a company."
-Ari Libarikin

"Nowadays, in basically every industry, analytics is a significant source of competitive advantage, and it's quickly getting to the point in some industries that if you're not using predictive analytics in a meaningful way, you're probably falling behind very quickly," said Libarikian. "It's a top-of-mind business issue, and it's one that enables value capture across the full value chain of a company."

So, just what *is* predictive analytics?

Predictive analytics is a branch of analytics that uses historical data, whether internal or external data, to predict what might happen.

Tim Peterson, President of AdvantEdge Analytics, a data and analytics solution developed specifically for the credit union industry, explains that "fundamentally, at its core, it's about using data and other methods and tools to make better business decisions." For credit unions in particular, it's "moving beyond that rearview mirror, static set of data and reports to leverage machine learning, new techniques and technologies that help us understand risk, like a member defaulting on a loan, the propensity for a member to respond to a particular offer or campaign, the likelihood of churn—and using statistical methods and data science techniques to suggest what the next action or result might be."

So let's break down the specifics.

The Data
This refers to all the information that is collected based on your business strategy. Whether it's specific transaction information or the time it takes to conduct business processes, it's the hard, cold set of indisputable facts that are ready for dissection and interpretation.

The Analytics
Piles of data alone do not reveal the answers. It takes data scientists and data translators to sift through that data to reveal business opportunities. While data has become more available, scientists and translators have become more in demand—and they are scarce.

The Opportunities
Once opportunities are revealed, they must be acted upon. This is the crucial step to closing the loop and one that many companies fall short on. The data and analytics can reveal opportunities, but if they are not executed, the opportunity is missed.

Setting your data analytics strategy.

Understanding what analytics is and what it can do for your credit union is only the beginning. In order to adopt analytics into any business requires a thoughtful, 360-degree approach that accounts for all components of the process.

Defining Strategy and Gaining Buy-In
The first step is to define your strategy. And while that may sound daunting, it's really not. That's because your analytics strategy should be aligned with your overall business strategy. According to Libarikian, "you don't do analytics for the sake of doing analytics, you do analytics because you're solving a problem." Tying your analytics strategy to your business strategy is a fundamental first step that helps you lay out your roadmap for the rest of the effort, while also facilitating buy-in throughout the organization.

Identifying What You Want from the Data
The next step is to ask the questions that will get the answers you want from the data. These can include:

- What are the business opportunities that are most significant to us?
- How can we prioritize them?
- What's the ultimate value of each?
- What's the investment needed?
- What are the metrics we'll use to track value?
- What is the roadmap we will follow?

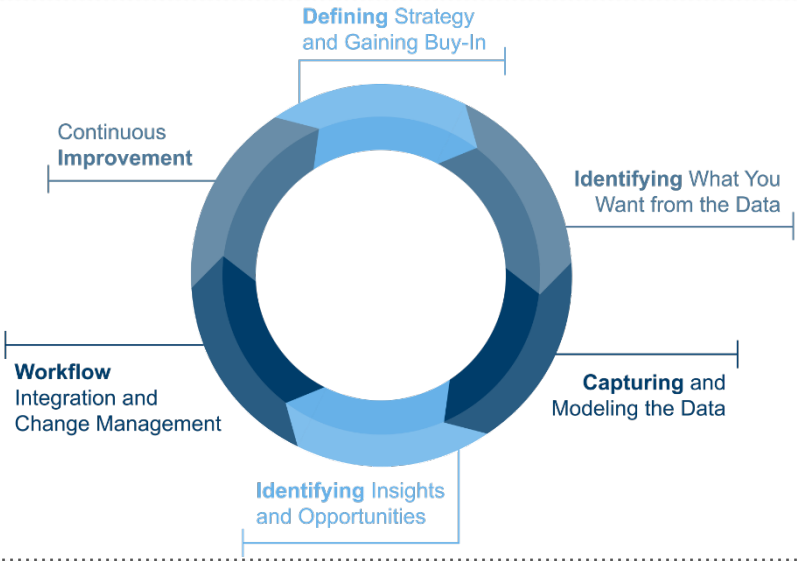
Capturing and Modeling the Data
Once your strategies are identified and your questions are prioritized, you can start collecting and mining data. Understanding what you want to learn from your data, assessing your internal capabilities and identifying your level of investment will determine the right technology for the job. Technological considerations include where data will come from, such as external vs. internal, and where and how it will be warehoused.

At this point in the process, it is critical that IT and business strategy be fully aligned. “In this new world, data needs to get democratized (data democratization is the ability for information in a digital format to be accessible to the average end user) a lot more,” said Libarikian. “The people responsible for the quality of the data and the architecture and the governance and the strategy need to be cross-functional teams, not just IT teams.”

Identifying Insights and Opportunities
While data models can provide valuable information, there is a critical human element when it comes to analytics. Data scientists (people who know how to pull the right data points based on the strategy), and data translators (people who know how to tie the data back to business strategies and effectively communicate the opportunities enterprise-wide), are essential in the process. Having this unique combination of high-level, scientific analytical skills combined with strong communication skills and business savvy is, as one can imagine, a rare skill set—and one that’s in high demand with the proliferation of data analytics.

Workflow Integration and Change Management
Once opportunities are identified, it’s time to implement. Libarikian says this is often the hardest part of the journey, and the point at which most companies struggle. Having top-down buy-in is critical, because it’s possible that a company will need to build its capabilities in order to take advantage of the opportunities revealed by the data. For existing employees, they must be open and willing to change for the better of the organization.

Continuous Improvement
These strategies are always iterative. You can come up with the right strategies, build the right model and have the right people execute, but you must also always be looking back to make sure the priorities are correct. Success requires constantly refreshing your approach, and often requires a more agile corporate culture than what previously existed.



The Opportunities for Credit Unions

Blesson Abraham, Director of AdvantEdge Analytics, sees tremendous opportunity for forward-thinking credit unions that choose to embrace data and analytics. “As an industry, we’ve brought value to our members for a long time,” he said. “Think about if we had more information at our hands that would help us make better decisions. And think about what that would do for us as an industry.”

What are the particular ways credit unions could benefit? Reducing attrition, or churn, is one top-of-mind problem that data and analytics can help solve.

It’s generally accepted that retaining existing members is less expensive than finding new ones, and studies have shown that member attrition can impact member growth, so it makes good business sense to find out when and why members leave and what can be done to keep them. By using data to find out key pieces of information about members—such as number of transactions, frequency of transactions and recency of transactions—and correlating them with factors such as age and, ultimately, attrition, you can start to build attrition risk profiles. Those profiles can help you identify specific members, or groups of members who will likely leave.[8]

This type of data can then inform your marketing strategies. From product development to promotion and advertising, predictive analytics can help you streamline your efforts, providing more timely and personalized experiences. These can include traditional marketing efforts, but, more importantly, they can build and enhance digital efforts.

And then, there are the opportunities afforded by mobile banking. Not only does this sort of digitization of the process offer data collection opportunities, it helps improve service and convenience for members. And members are demanding it. Co-Op Financial Services reports that two of the things members want most are speed and self-service opportunities. Both can be delivered via mobile platforms—and both can be enhanced with analytics.[9] Analytics can help you determine which transactions are taking the most time to help improve the way they are delivered. They can also help you determine how you can use digital applications—everything from mobile to kiosks – to empower members to do more on their own while staying within your organization.

Best Practices

Experts in data analytics emphasize a few key points to keep in mind to ensure businesses leverage data and analytics to their full effect. They include:

- **Leadership Buy-In**

  Libarikian sees leading companies start with a commitment at the top of the house. He says it is essential that the senior leadership team agree that analytics is a priority and that it will be used to solve the most pertinent problems—and that commitment is an absolute necessity.

- **Democratization of Data**

  Peterson emphasized that you can't have a "build the data and they will come mentality." And Libarikian seconds it. "We've found that the more the data is democratized, the more you liberate a large number of people throughout the company to solve problems with the data and then ultimately make much better progress."

- **Hiring the Right Talent**

  Peterson says that hiring the right talent is critical. Whether it's internal or working through a partner, credit unions must invest in good business analysts and resources that can help them translate analytics into insights for their organization.

- **An Agile and Responsive Culture**

  Of course, no matter what opportunities are unearthed by the data, if your culture and workforce can't figure out a way to adopt and implement appropriate use cases, all the investment in data and analytics will be wasted. Change management plans and a willingness to do things differently is key. Libarikian furthers this by saying, "Advanced analytics by definition are going to fail a few times, and that's okay. The company needs to have the discipline to keep going and embark on new use cases and new projects."

The Time to Embrace Analytics is Now

The resources—whether contracted externally or built internally—are available and scalable for the needs of credit unions, large and small. The time is now for credit unions to get out and find the predictive analytics solution that works best for them in order to gain a competitive advantage. Because if they don't now, it might be too late.

Banks are already on board and well underway. Financial institutions and banks like Chase and Wells Fargo often have hundreds of data scientists on staff. For example, Wells Fargo has a team of 600 people and are infusing $100 million annually into data and analytics.[10] This all plays into the overall predicted spend of $22.1 billion[2] annually in the banking industry by 2019. If banks are too far ahead in delivering a better consumer experience and a competitive cost, where will that leave credit unions?

And, we know members already expect more convenience. Not only are they demanding self-service and speed, as they continue to be introduced to more convenient methods from other industries, they will expect the same from their credit unions.

There is no what if. Predictive analytics is the future for all industries—including credit unions. The only question is, when and how will you implement it at yours?

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