



THE COMPREHENSIVE GUIDE

To Credit Union Data Analytics

- Measuring member lifetime value
- 5 stages of the analytics journey
- Understanding costs, pitfalls, & challenges



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WHY SHOULD WE INVEST IN OUR DATA?

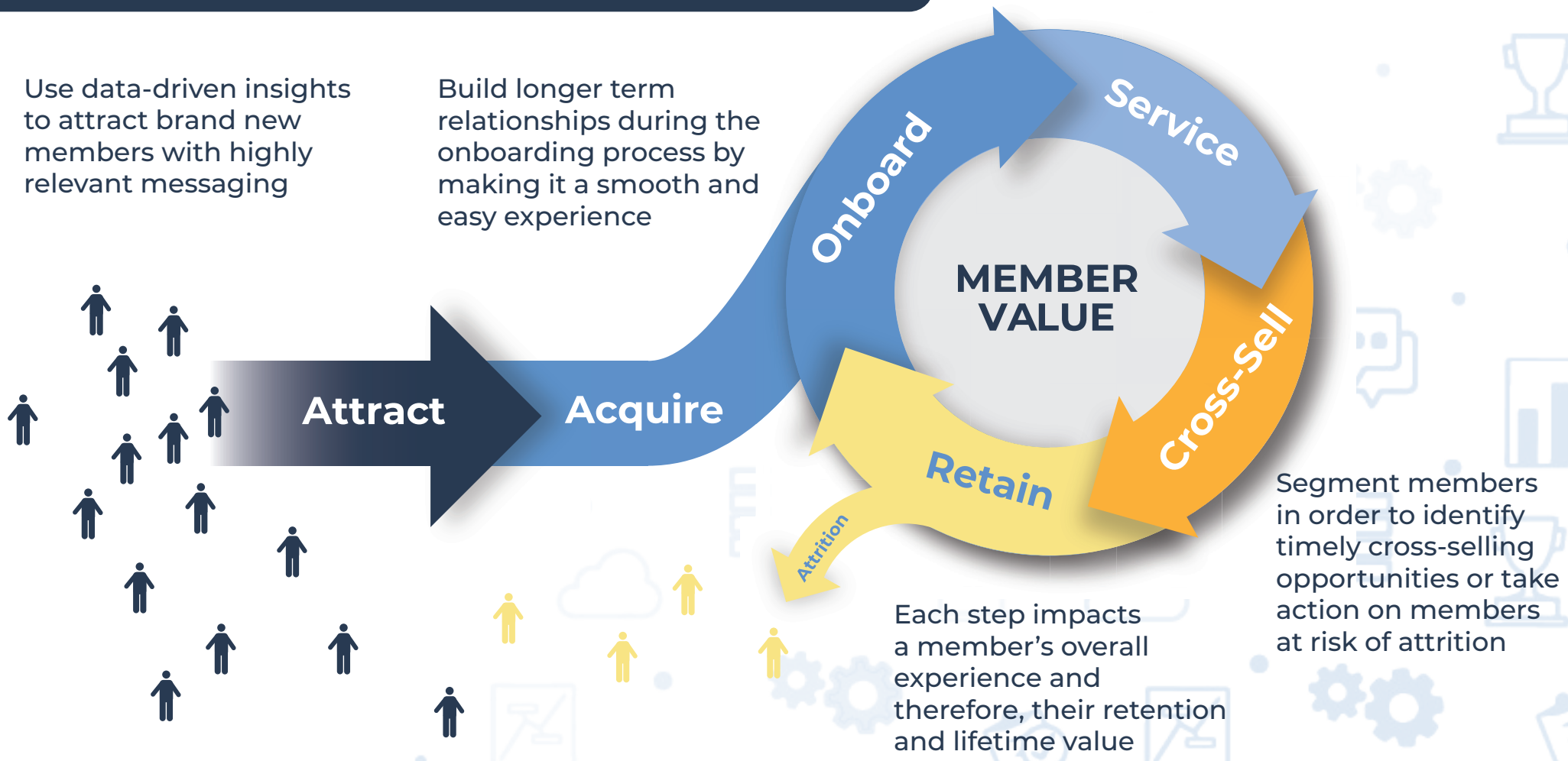
Measuring The Member Lifecycle Journey

Each stage of the lifecycle journey is an opportunity to create additional value for your members.

Predict and improve the overall member experience (and value) by analyzing each channel, product, and acquisition costs

Use data-driven insights to attract brand new members with highly relevant messaging

Build longer term relationships during the onboarding process by making it a smooth and easy experience



WHAT ARE THE COSTS OF AN IN-HOUSE ENTERPRISE DATA WAREHOUSE?

Building an EDW is the foundational step to progressing along your data journey. Don't go at it alone, there's a better way. Achieve value faster, easier, and cost-effectively with a dedicated partner like Arkatechture.

85%

Big Data Project Failure Rate

On average, 85% of in-house data warehouse projects fail to move past preliminary stages

\$500K+

Average Cost of Implementation

Data warehouse projects cost anywhere from \$500K to \$2MM

\$880K+

Average Cost of Annual Upkeep

Organizations normally don't have skills internally and end up needing to hire a team to support it

An enterprise data warehouse (EDW) is a relational database containing a credit union's business and member data. It enables data analytics, which can inform actionable insights. EDWs collect and aggregate data from multiple sources, acting as a repository for most or all organizational data to facilitate broad access and analysis.

85%: <https://designingforanalytics.com/resources/failure-rates-for-analytics-bi-iot-and-big-data-projects-85-yikes/>
\$500k: TRELLANCE <https://www.trellance.com/the-cost-of-building-a-data-warehouse-for-an-analytics-platform/>
Upkeep Cost: <https://www.atscale.com/blog/the-true-cost-of-doing-big-data-the-old-fashioned-way/>
EDW: <https://www.snowflake.com/guides/what-enterprise-data-warehouse>

THE 5 MAJOR CHALLENGES OF DATA ANALYTICS

1



System Conversions

Switching systems causes disruptions to vital reporting. Do you have the infrastructure in place for future system conversions? Without it, reporting and business intelligence could be interrupted when upgrading to new platforms.

2



Too Many Data Silos

Disparate data makes analysis difficult and time consuming. Is all of your data for analytical purposes stored securely in one easily accessible location? Analysts may spend a large portion of their time blending data manually (a lower value activity).

3



Data Hygiene

Is your analytical data set clean enough to be your true SSOT? If not, how will you achieve & trust accurate results from your reporting and analytics outputs? Data quality is key to building trust in your single source of truth.

4



Manual Reporting

How many hours do you spend developing routine reports? Automate daily, weekly, and monthly reports to gain instant time & cost savings. Focus your analysts' time and efforts on higher value tasks to ultimately become more data-driven.

5



Gut-Feel Decisions

Do you trust your data enough to make decisions with it? Analyzing your data is the first step, but taking action with it is true data maturity. Back up your gut instinct with hard data that gets everyone in the boardroom on the same page.

5 CONSIDERATIONS OF DESIGNING YOUR DATA ANALYTICS ECOSYSTEM

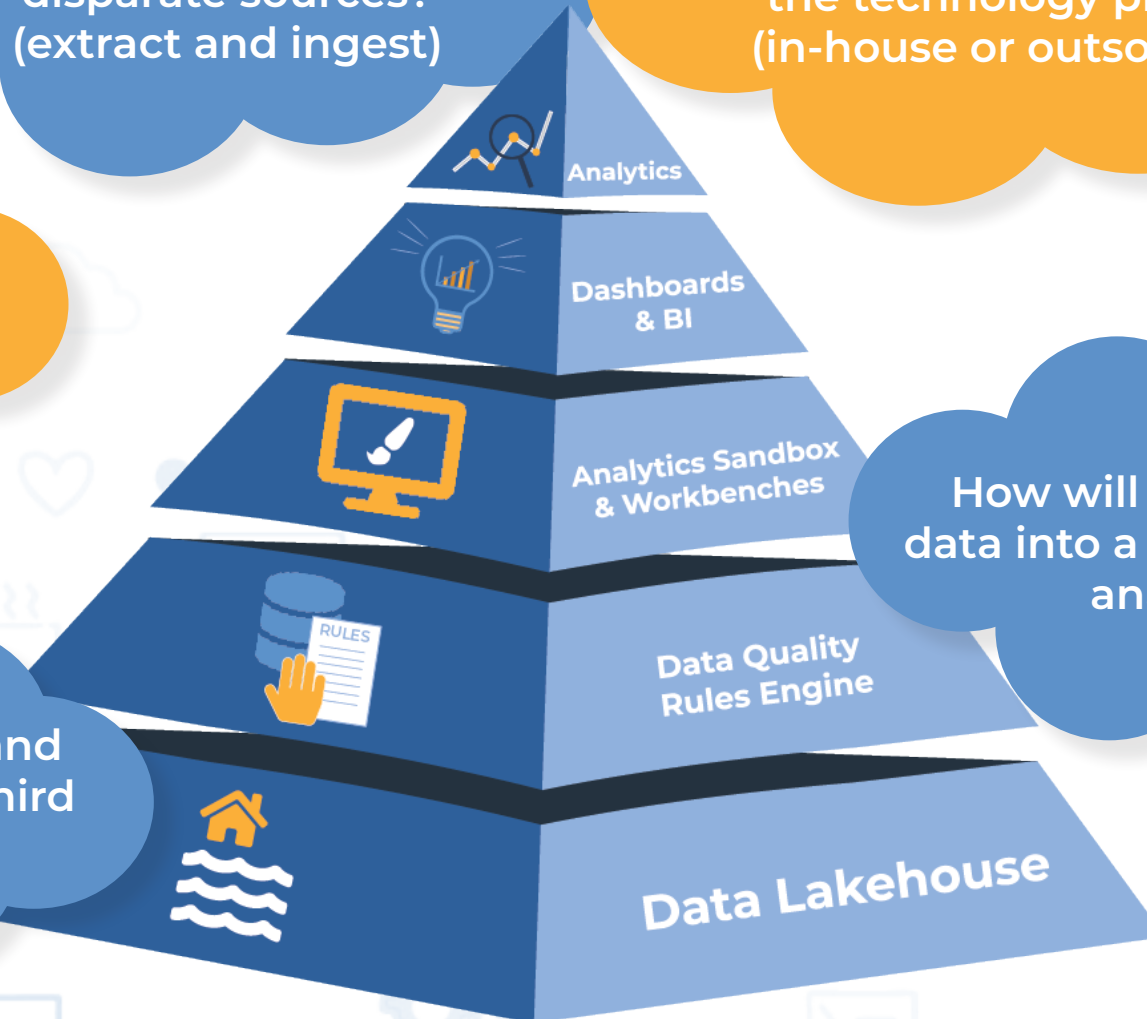
How will you bring your data together from disparate sources?
(extract and ingest)

How will you host and manage the technology pieces?
(in-house or outsourced)

What will you use to analyze and visualize your data?

How will you extract and share your data with third party vendors?

How will you get your data into a data model for analysis?



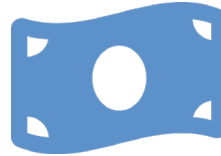
CREATING VALUE THROUGH DATA ANALYTICS



Better Understand Member Base

With your members properly segmented, you can visualize and better understand groups that have similar needs. Identify and capture cross-sell opportunities.

Identify the factors and behaviors that contribute to account-level and member-level attrition.



Grow Revenue

If you are targeting the right groups with the right products and messaging, you will see your revenue grow.

Save time and money by having daily reports automated, to make decisions proactively, and therefore keep your credit union running efficiently.



Targeted Marketing to Further Strategic Goals

Address your members' needs in the most effective way possible. Group like members with weighted factors such as tenure, current products, balances, and more.

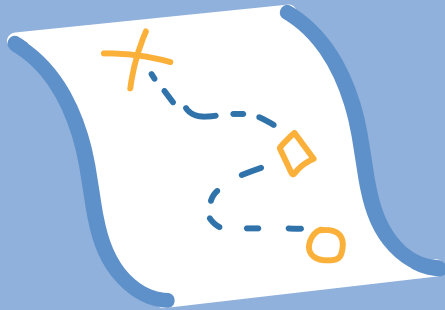
Keep members engaged, and add some personalization to your marketing campaigns!

THE 5 STAGES OF YOUR DATA ANALYTICS JOURNEY

The primary goals of a successful data analytics program are to increase operational efficiencies and support decision making processes with facts

Let's break down the full data analytics journey into 5 stages to drive the most value today and well into the future

1



**DATA STRATEGY
& ROAD MAP**

A great data analytics program starts with a deliberate strategy, purpose-built and sized for the organization. It should consider factors such as: data sources, available technology, organizational culture, governance, and most of all, the people and stakeholders involved. Do you have the right people, technology, and leadership in place to ensure success?

2



**DATA
GOVERNANCE**

Trust and confidence in the data is critical to creating value from your analytics efforts. Without it, any results will be questioned and debated, then subsequently ignored. At this stage, we recommend a data quality rules engine and governance practices to give you the cleanest and most trustworthy data sets to work from and analyze.

CONTINUE

3



WORKBENCHES

With the establishment of a trusted data source, work can begin to answer valuable business questions from your data. The quickest way to accomplish this is to build workbenches that act like super pivot tables to slice and dice data without technical skills. With the right BI tool, you'll capture ROI from report automation & reduced IT backlogs.

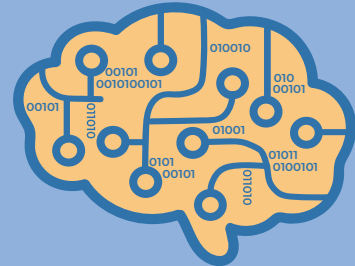
4



DASHBOARDS & BI

This stage involves a deep dive into individual roles & duties. Interviews will take place to identify key performance metrics to guide the design of tailored dashboards. When you show up for work, you're greeted with exactly the information you need, no more, no less. Refresh the data on a daily, hourly, or even real-time basis depending on the role's requirements.

5



AI & MACHINE LEARNING

The ultimate end goal for data analytics programs is predicting what will happen next. With enough historical data points, you'll be able to model, train, test, and deliver advanced analytics that prescribe your next action. Measure the full member lifecycle with a segmentation model, product recommendation engine, and attrition model.

DRIVING ROI THROUGH DATA AND PREDICTIVE ANALYTICS

According to a study conducted by Nucleus Research, on average, for every dollar spent on analytics technology, the customers received \$9.01 in benefits on an average project budget of \$563,114. Here are the 4 ways to drive ROI through data and predictive analytics:

Reporting Automation

188% ROI

Capture operational efficiencies through automating manual data prep and reporting tasks

One CU reduced the time it took to make reports from 16 hours to 15 minutes

Strategic Dashboards

389% ROI

Identify and build strategic dashboards for decision makers with key performance indicators

One credit union saved \$30,000 from implementing marketing dashboards

Self-Service Analytics

968% ROI

Democratize data access throughout the organization to align daily operations with management's goals

70% of employees at a credit union are now licensed Tableau users

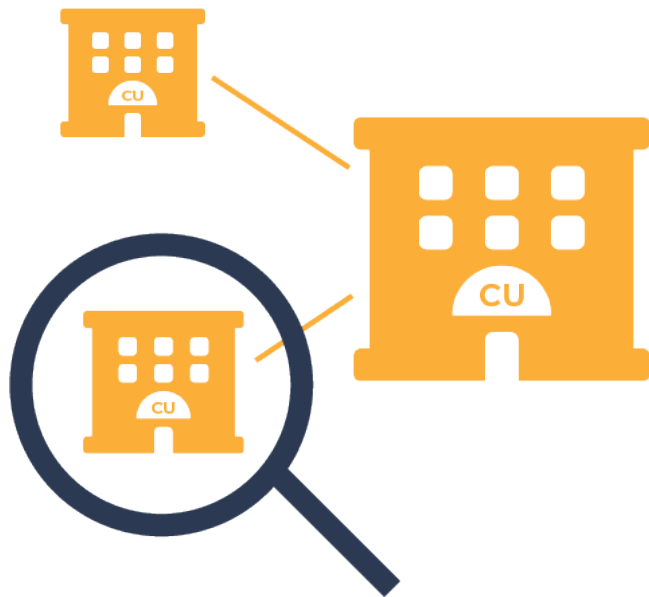
Predictive Analytics & ML/AI

1,209% ROI

Develop advanced statistical models for descriptive, predictive, and prescriptive analytics

Some credit unions are deploying pooled analytical models for segmentation and attrition

USE CASE - EXECUTIVE Branch Analysis



Benefits:

- Assess how different branches are doing in comparison to each other in different areas
- View what kinds of accounts and transactions are being created and where
- See where certain branches have room for improvement

Why You Need It:

View activity at all branches in one place. Understand member behaviors at different branches, which branches are excelling in certain areas, and which branches have room for improvement in certain areas.

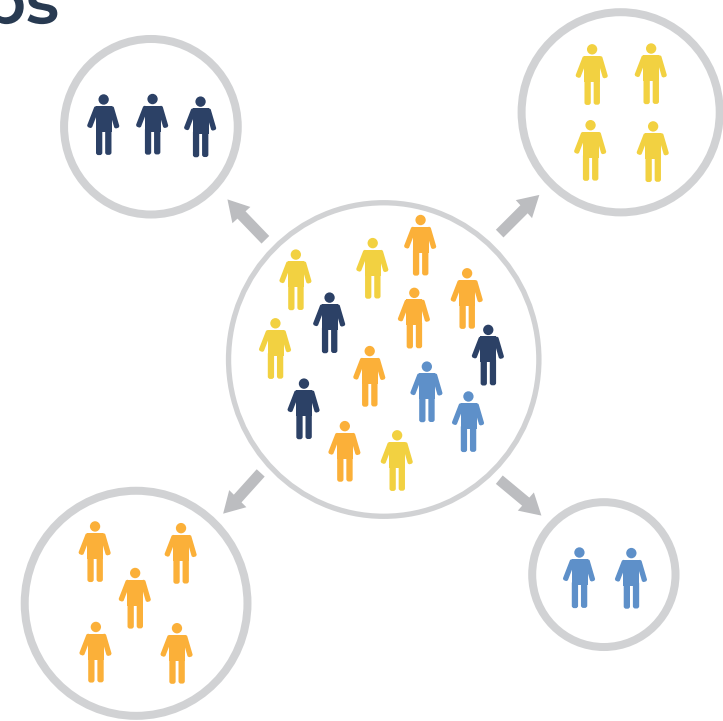


USE CASE - MARKETING

Segmenting and Targeting Groups

Why You Need It:

Quickly and visually compile user lists for use in marketing campaigns. Define user segments on the fly based on like-traits and behaviors.

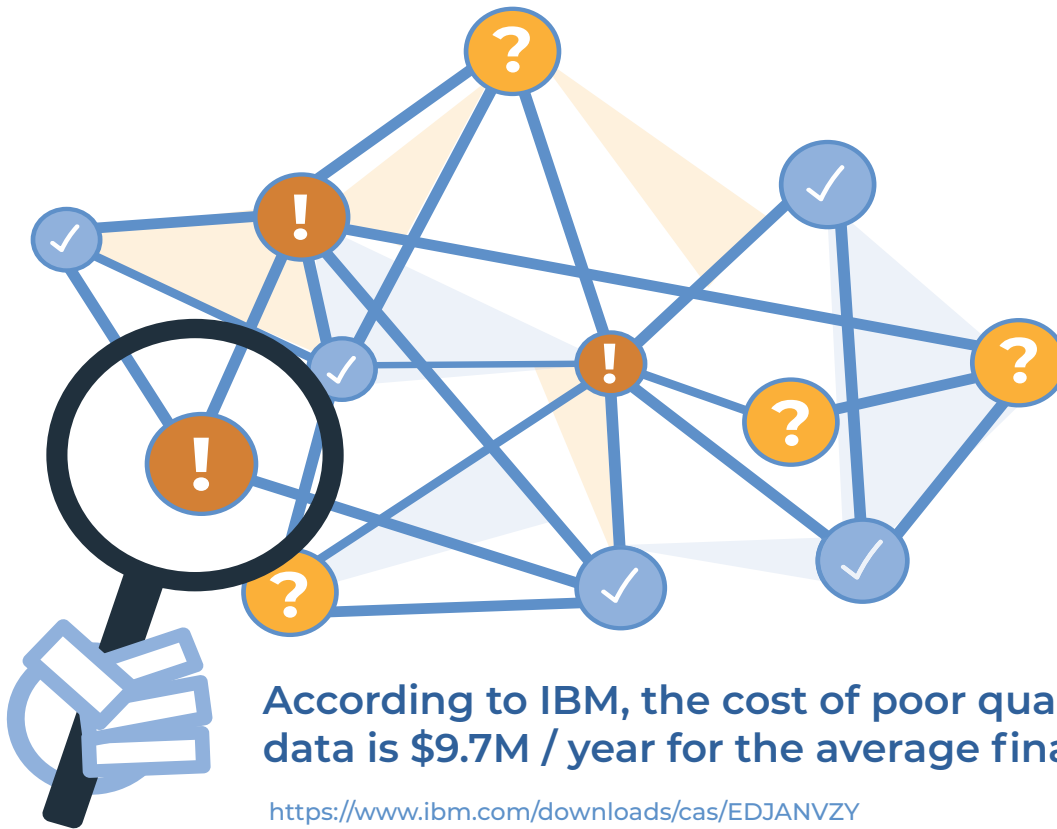


Benefits:

- Reduce time spent compiling marketing lists
- A clear view of member base to prioritize prospecting efforts
- Increase probability of interest in the products you market to certain groups

USE CASE - DATA GOVERNANCE

Poor Quality Data Means Poor Quality Decisions



Boost Your Data Quality

Develop and deploy data quality rules to identify defects at the source. Leverage root cause analysis to design process improvements that reduce defects over time.

Build Trust in your Data

With proper metadata tracking in place, you will create new data points with each data quality cleanup. Create accountability within each business line to build a data-driven culture.

USE CASE - LOAN OPERATIONS

Self-service Workbenches

Why You Need It:

Empower business owners to answer questions without an analyst with 7 subject area workbenches that cover many different departments.



Benefits:

- Replace one-off queries
- 50k+ report permutations
- Reduced cost by 70%
- Reduced time by 88%

USE CASE - TRANSACTION ANALYSIS

Total Transactions During 30 Minutes Between 01/01/2021 and 01/31/2021

HOUR	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
8	38	25	32	23	30	47	195
9	60	53	59	180	46	102	500
10	112	79	87	296	205	145	924
11	45	31	50	379	306	139	950
12	203	180	79	416	409	157	1444
13	187	161	187	453	672	247	1907
14	46	32	46	426	653	289	1492
15	307	273	311	307	347	178	1723
16	446	406	312	102	578	193	2037
17	178	186	146	123	543	97	1273
18	380	236	140	98	142	28	1024
19	56	32	30	53	74	19	264
20	12	4	6	13	22	7	64



“We are extremely happy that we chose Arkatechture as our data analytics partner, it has been a perfect fit for us.”

-Becky Curry, SVP of Data Intelligence

Arkatechture offers customization so that clients can create and build custom data visualizations and dashboards with the analytics sandbox tool in Arkalytics, which leverages Tableau Software. The ORNL FCU team knew that constructing a transaction heat map would be a very useful tool for them, so they built one.

With this tool, they could now section out all transactions and the different channels the credit union had available. The heat map allowed ORNL FCU to see all transactions conducted through any given channel in any given time range. The dashboard shows when members are in the branch conducting transactions, and when the most transactions occur, serving as a window into the day-to-day operations of every branch. They also added a feature to filter to see only digital or phone transactions.

RESULT

After just a few months of having the transaction heat map up and running, ORNL FCU was already able to reap the benefits. They were able to move staff mid-shift to cover periods of time that historically branches have had peak hours. This increase in branch staff scheduling efficiency was particularly helpful with the current staffing shortage.

A DATA SUCCESS STORY



This credit union decided to overhaul their data management strategy but needed expert help to shore up a skills gap in data warehousing, data quality, and data modeling subject areas to meet their goals on time. St. Mary's Bank initially chose to partner with Arkatechure to get help with cleaning their data.

SOLUTION

St. Mary's Bank cleaned up their data quality issues and put operational efficiencies into action to eliminate unnecessary manual processes related to organizing data for analysis. Today, the credit union leverages data science to apply descriptive, predictive, and prescriptive data analysis techniques.



THEIR RESULTS:

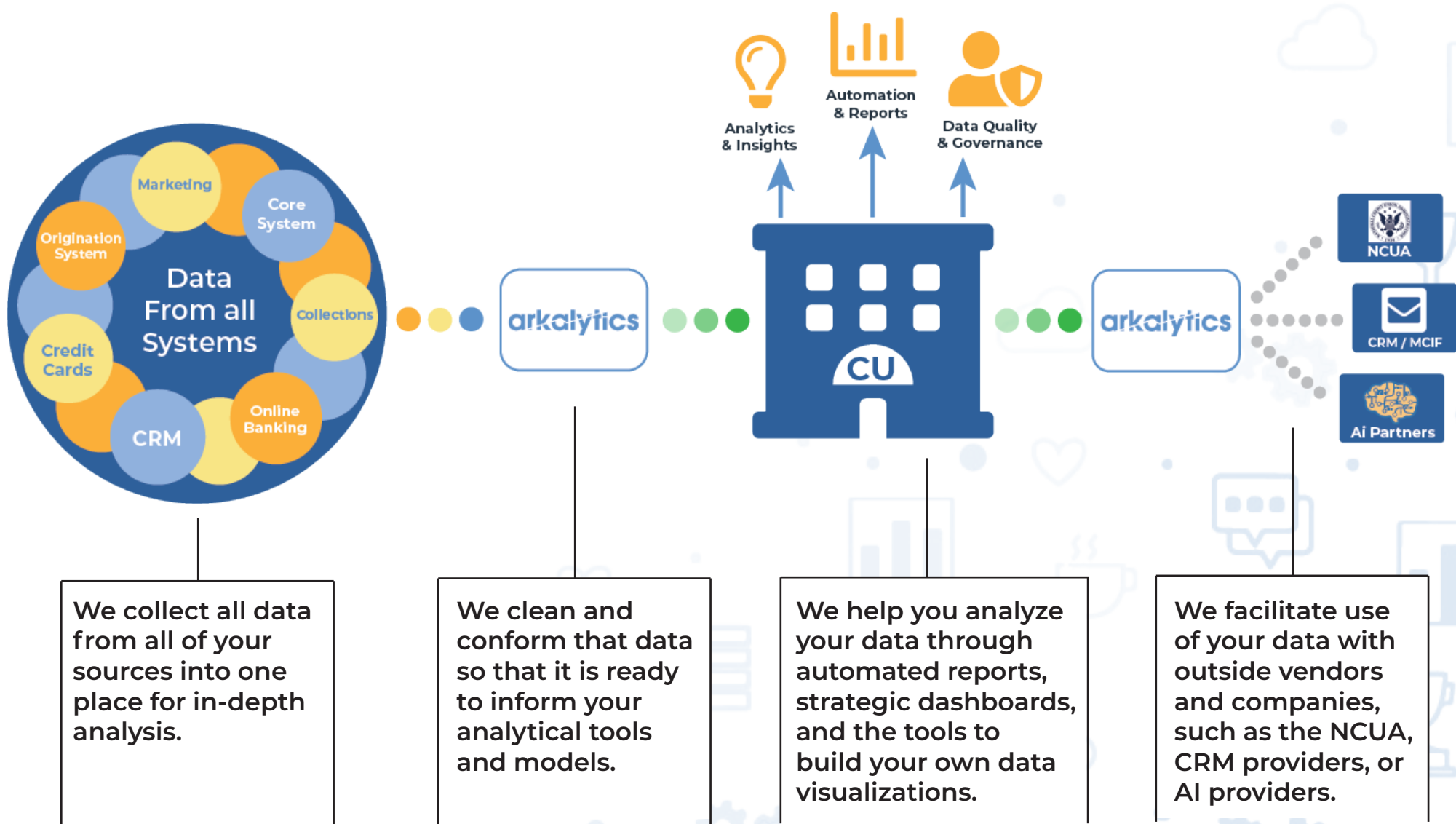
- Affordable data management
- 70% of employees are now data-driven
- Automation of routine reports
- Data-driven decision making

“From my experience, I see that the people at Arkatechure are very skilled in making sure that the standards they apply and the security regulations that they're using are very appropriate for credit unions... I am happy to recommend Arkatechure and Arkalytics to other credit unions to help them manage their data and understand their members.”

- Melissa Pomeroy, Vice President and
Director of Business Analytics

ACHIEVE YOUR STRATEGIC GOALS THROUGH DATA ANALYTICS

How Arkatechture Helps Credit Unions

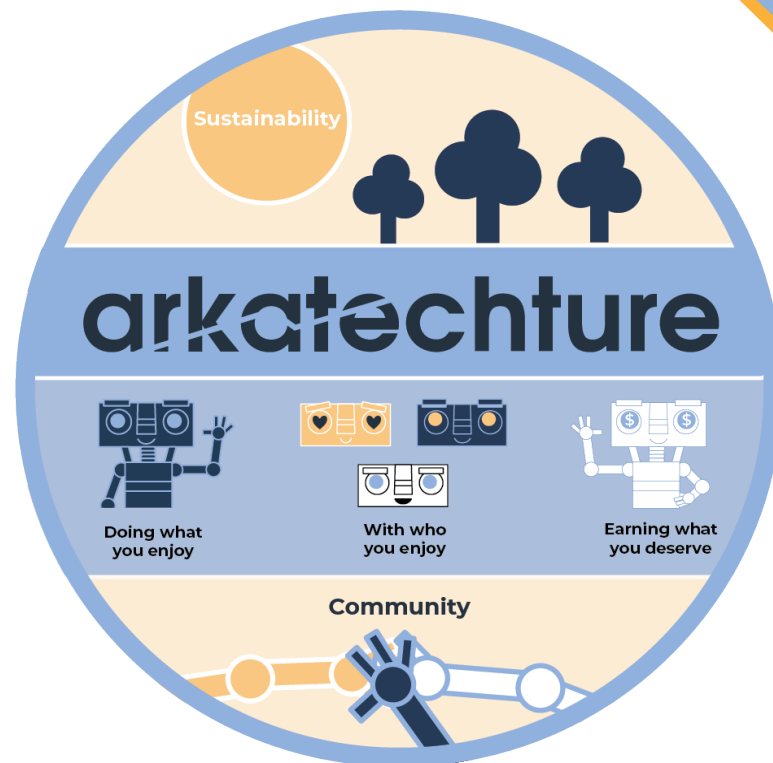


A BIT ABOUT arkatechture



Arkatechture is a technology company and CUSO dedicated to empowering organizations with a better understanding of their business through data.

We are a team of data lovers and technical experts who use our skills to help businesses of all sizes harness, utilize, and optimize their data.



arkalytics

Arkatechture's featured solution for Credit Unions, Arkalytics, is a full-service data analytics platform that combines a cloud-native data lakehouse with a suite of financial reports and analytical models.

Governance



Build Trust in Your Data
Analytics Practice

Workbenches



Leverage Self-service
Analytics Capabilities

Dashboards



Suite of Financial
Reports & Dashboards

Analytics



Artificial Intelligence &
Machine Learning



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Become Data-Driven.

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