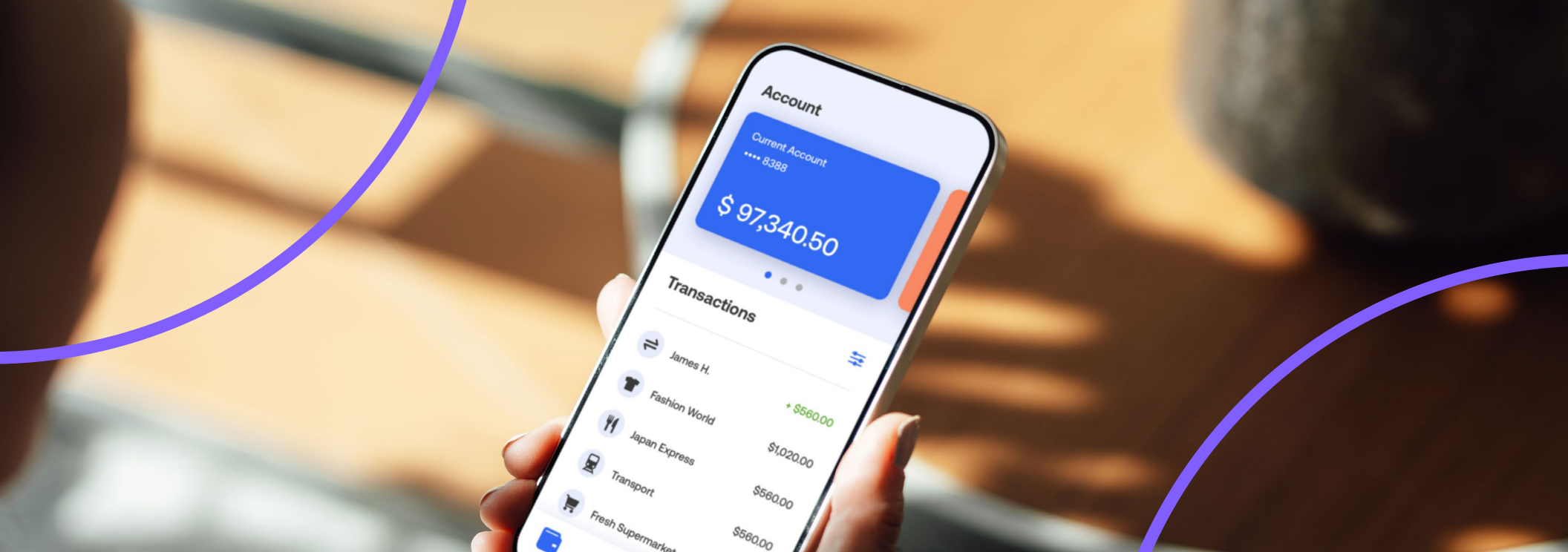


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**How banks are transforming unstructured data into actionable insights**



Today's banks are experiencing exponential growth in the volume of data they collect and manage — from front office customer engagement to back office compliance and risk management. Why is unstructured data important?

Unstructured data is critical to functions across the entire banking enterprise — sales and marketing, product development, and customer service, among others. A major benefit of unstructured data is sentiment analysis, the analyzing of social media posts, chatbot interactions, forum discussions, and other media. Sentiment analysis identifies customer purchasing patterns and sentiment toward the brand, which can then lead to insight-driven product and service development, as well as enhanced customer service.

But all data is not easily actionable, and putting it to work for your organization requires an informed, strategic, and measured approach. Let's start with the understanding that not all data is created equal.

# The data evolution

Today's data arrives at a financial institution from a wide range of sources and in a variety of forms. It was not terribly long ago that data sources were far more limited, and far less dynamic, with data arriving in predictable, structured formats. For banks, this data is numbers and values based, such as the details relating to customer demographics and financial transactions, i.e., names, dates, addresses, credit card numbers, and more. As a result, the traditional data management system is limited to numbers and values-based data.

By contrast, unstructured data — also known as “big data” — is the data associated with a whole new world of data sources that includes social media, image and video files, document scans, webpages, blog posts, call center recordings, emails, analytics, metadata, and more. This data lacks a defined organization or pre-set pattern, can range in size from a few bytes to very large documents and represents, by far, the lion's share of the data that banks process daily.

***80% of enterprise data is unstructured and growing at an average rate of 65% each year.<sup>1</sup>***

<sup>1</sup>CIO Insight. How Businesses Use Unstructured Data for Business Intelligence. February 15, 2023.

## Automation: The right approach to bringing structure

Transforming this vast volume of complex data into useful, accessible, and actionable information can revolutionize a financial institution's data-driven systems and processes — enhancing risk management, improving customer experience, identifying market trends, and driving innovation through real-time, better-informed decision making. But you need to take the right approach.

To manage your data effectively, extract value from it, and realize the vast potential that it offers, banks must evolve to a modern data management platform that will eliminate data silos; provide fast and flexible data processing; and ensure easy, secure access. Only then can you extract valuable insights, improve operational efficiency, and grow your share of wallet.

How? With low code, cloud-based, AI-powered automation. Our [IBP \(Intelligent Business Platform\)](#) is an ecosystem of cloud-based business process services, so there's no software or hardware to buy and maintain. You simply pay for the services you need, enabling you to scale up or down with business demands. It also allows you to deploy cutting-edge digital technologies without having to make a sizable capital investment.

Let's look at some of the types of automation needed and the positive impact they can have on specific banking operations.



## Automating for efficient extraction and classification

Automation enables the classification of unstructured data into relevant categories, such as customer segments, product preferences, or geographic regions.

- **Natural Language Processing (NLP)** models can analyze and interpret text, allowing for the extraction of key entities, sentiment analysis, and topic modeling.
- **Optical Character Recognition (OCR)** systems are employed to convert scanned documents and images into searchable and editable text, enabling easy extraction of data from various sources.
- **Machine Learning (ML)** algorithms can be trained to categorize unstructured data based on predefined criteria, enabling rapid sorting and organization. This significantly reduces the time and effort required for manual classification, enabling banks to unlock valuable insights and make data-driven decisions more swiftly, while minimizing human error.

## Automating for improved customer experience and cost reduction

**Improved customer experience:** Harnessing unstructured data efficiently, and transforming that data into actionable insights, allows banks to gain a more comprehensive understanding of their customers. By automatically capturing and analyzing customer interactions across various channels — such as call logs, emails, and social media — automation can assist in gauging customer satisfaction levels and pain points, as well as responding more promptly to questions or concerns. ML algorithms can, for example, sift through emails, reviews, and other customer interactions to understand the sentiments behind them, thereby helping to predict customer behavior, enhance their experience, drive loyalty, and improve retention rates. All while adding greater efficiency and accuracy to manual, labor-intensive and error-prone, “human-in-the-loop” processes.

But there's more to customer experience than advanced technology. Once data becomes insights, the bank's marketing department must turn those insights into revenue. [RICOH Marketing Services](#) offers expertise in marketing collaboration and distribution, campaign management, marketing attribution, marketing automation, and creative design. By partnering with us, your internal team will have more of the manpower it needs to drive continuous innovation, execute more effective marketing programs, and maximize ROI.

**Streamlined operations and cost reduction:** Manual data processing is not only time-consuming, but also prone to human error. Automation eliminates the need for labor-intensive, repetitive tasks, freeing up valuable resources and enabling staff to focus on more strategic initiatives. The efficiency gained through automation leads to cost reduction, increased productivity, and improved operational performance.

“Data gathering and optimization can help financial services streamline and optimize their internal processes using technologies such as artificial intelligence and machine learning. They can use their customers’ data to reduce operational risks and cut business processing costs.”<sup>2</sup>

<sup>2</sup>Forbes. How data-driven banking can transform the financial landscape. June 21, 2022.

# Automating for enhanced compliance and risk management

**Compliance:** Automation efficiently processes and analyzes unstructured data that can assist in identifying potential breaches or inconsistencies. By automating regulatory reporting, banks can reduce the risk of errors, streamline compliance processes, and ensure adherence to legal requirements.

**Enhanced risk management and data security:** Unstructured data often contains valuable indicators of potential risks, such as fraud, money laundering, or regulatory non-compliance. Automation can analyze unstructured data in real-time, flagging suspicious patterns or anomalies that may indicate fraudulent activities. By leveraging automation to identify and mitigate risks, banks can protect themselves and their customers from financial losses and reputational damage.

Making your enterprise content accessible doesn't mean making it vulnerable. It is critical to secure your data by:

Setting tiered privileges to protect sensitive data by defining who can view, edit, approve, publish content — or not see it all

Password-protecting document access

Tracking edits, views, and versions

Backing up data to avoid business interruption

Deploying safeguards and audit trails

Mitigating compliance risk associated with paper documents and manual workflows





## Choosing the right automation solution

In the era of big data, unstructured data can either be an overwhelming burden or a goldmine of opportunities for banks. Together, AI-driven solutions and unstructured data are providing that goldmine of opportunities, transforming the way banks do business by enhancing risk management, improving customer experience, identifying market trends, and driving innovation through real-time, better-informed decision making. After all, the future of banking lies in embracing automation and harnessing the power of data to unlock new avenues of growth and success. And that future is now.

**So, what steps can you take to begin finding and implementing the right automation solution?**





## Step 1: Remember — digital transformation is organizational change

“When we ask CEOs how their transition to digital is progressing, they often respond with a list of initiatives under way across the business. But when we ask them to quantify the impact on the bottom line, there’s usually a long silence.”<sup>3</sup>

Why are so many decision makers unsatisfied with their progress in a digital transition? The “long silence” stems from an approach to buying technology that does not fully recognize that the transition to digital is, first and foremost, organizational change. As a change leader spearheading a technology purchase, it’s critical that you invest time early in the process to ensure that everyone — from C-suite to front-line — is not just on board, but fully engaged.

<sup>3</sup>McKinsey & Co. How do you measure success in digital? Five metrics for CEOs. January 29, 2021.



## Step 2: Identify and engage all stakeholders

A common misperception in building consensus is that stakeholders are users. They're not. A stakeholder is any individual who is impacted by a decision. When identifying stakeholders, cast a wide net, since their adoption of any new processes is critical to its success.

Stakeholders who are not fully involved often fail to understand the importance of buying into the change or what their part should be in making the change successful. They simply understand that a change is happening "to them," and not "with them." Instead, they need to clearly understand the purpose of the investment, why it's necessary, how it aligns with your strategic business goals and how it achieves an enterprise-wide, net-positive gain. Doing so saves time and money — and eliminates friction down the road.



## Step 3: Agree upon measures of success

Arbitrary definitions of success can and will hinder progress. What is considered a win? Automating a process by 50% could, for instance, be deemed a success by some, while others could be aiming for 80%. ROI, key to measuring the value of any tech implementation, is nearly impossible to calculate when stakeholders have varying definitions of success.

## Step 4: Avoid SOS (Shiny Object Syndrome)

Breakthroughs in technology are occurring on an almost daily basis, and it's human nature to wonder if one should, perhaps, shift one's focus from yesterday's solution to today's. SOS most often occurs when leaders are managing (and distracted by) multiple initiatives, underestimate the complexities of executing the transformation, or fail to fully involve all stakeholders.

Chasing bright shiny objects can lead to continual comparison and fear of missing out. Avoid it by setting clear, measurable, agreed-upon, and achievable goals ... right from the start.

## Step 5: Make the best use of user stories

Business leaders have the opportunity, and responsibility, to provide their perspective on business needs at the beginning of the technology procurement process. Here, user stories can be quite effective as they: 1) guide the buying team along their journey toward vendor partnership, and 2) articulate in a simple way the “who, what, and why” of the desired outcome.

## Step 6: Transform user stories into use cases

Once captured, distill your case studies into use cases that include all stakeholder parameters, goals, and benefits. Prioritize them, and eliminate any that are incompatible with existing technologies or lack clarity in measurement. Then, identify those use cases that are aligned to your current strategic goals (1-3-year roadmap) versus those that reflect longer-term investments (3-5-year roadmap). Now, you're ready to take them to vendors.

Much can be learned from vendor collaboration, such as insights gained from past engagements. Ideation workshops, for example, can be useful — not only in validating the vendor's expertise, but also helping to identify any unrealistic expectations or false assumptions.



## What's next?

Once you unleash the power of your information, there's no going back. With all the improved efficiency and insights you'll gain from optimizing your information and unlocking its full value, you'll wonder why you didn't start sooner.

At Ricoh, we are unlocking the power of our customers' information, processes, and abilities so they can respond to change and provide the best possible experiences for their employees and customers. By unleashing the full power of trapped information, financial institutions can unlock the full potential of their people, respond to change with actionable insights, and create more meaningful human experiences.

For further information, please visit [ricoh-usa.com](https://www.ricoh-usa.com).

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