

# Wholesome Banking

SLK Software's intelligent automation leads to over 50% reduction in operational costs and increased efficiencies

## A regional bank based in Midwestern USA serving commercial customers and small & medium enterprises

*The bank was looking to optimize time and costs in evaluating risks in commercial loans, with low margin for errors*

*SLK Software applied an automation solution coupled with a continuous learning AI model to address the variations in the financial statements*

*The bank was able to reduce operational costs by over 50%, with 60% reduction in handle time*

*Error rates reduced to 2% instead of 10-12% previously*

## The Challenge

Commercial loan processing is a complex process, fraught with myriad tasks and associated risks. To assess the financial health of the customer and the risks involved, the bank's Credit Risk Analysts typically spend significant amount of time in manually extracting the data especially from financial statements (annual statements, quarterly statements, tax returns etc.). The content of these financial documents is usually unstructured, and insights are hidden within the descriptive text. Plus, these documents are available in different formats, with non-standard account labels and varied content within a financial statement form.

The complexity of the financial documents is further compounded by other challenges:

- Specialized skills and time taken to train Financial Analysts - Financial Analysts typically require a bachelor's or master's degree in accounting and finance, with specialized training in financial analysis.

These skills are hard to find and are expensive. In addition, it takes over 2 to 3 months to get an analyst trained on the specific requirements of the bank.

- Data gathering is a time-consuming activity - Risk Analysts spend about 60% of their time on data gathering. They also need considerable time to cross reference, understand comments and assumptions, and contextualize the industry specific data.
- Retaining full time and trained analysts is costly as well as risky for the bank - Volumes of new commercial loan requests are hard to forecast. In addition, the periodic activity of quarterly reviews of existing loans make it harder for the operations unit to maintain the right number of staff.

Given these challenges, the bank was seeking to automate the process and:

- Reduce the high operational cost to maintain a large team of analysts
- Minimize the lead time to train analysts as per the bank's requirements
- Eliminate inconsistencies and reduce turnaround time for processing financial statement spreading

## Solution Overview

SLK Software introduced an Intelligent Automation solution to accelerate the processing of data from varied statements to actionable insights and analysis by the Risk Analysts. With

automation, the bank could enable its Risk Analysts to sift through the large volumes of complex documents and gather reliable and consistent information. This nimble and robust automation solution, based on Robotic Process Automation (RPA), was



supplemented by intelligent automation levers such as OCR/ICR for data extraction, Natural Language Processing (NLP), and Artificial Intelligence/Machine Learning (AI/ML) models to perform the correlations between tabular information, footnotes and apply the relevant business rules.

The key components of this end-to-end solution included:

Digital workers or Bots to collect the documents from sources such as emails, repositories, and public websites. Also, perform downstream activities such as entering statement info into risk analyst platforms like Moody's, Sagemaker, Jack & Henry etc., along with report generation and communication etc.

Automated extraction of various types of filings and financial documents and normalization from multiple statements, forms, and formats

- Locate key information using computer vision models for content segmentation

- Map non-standard account labels after information extraction and retrieval using Named Entity Recognition (NER) and Relation Extraction (RE)

- Refine the domain adapted transformer model for further classification and sentiment analysis

- Manage content variation and aggregation using data analysis methods such as clustering using nearest neighbors search across several entities and peers of the organization to make comparisons

- Spreading of footnotes, use of NLP to perform sentence segmentation, layout analysis, and context extraction through named entity recognition and transfer learning techniques

- Application of customized rules

A simplified and intuitive user interface, providing a single pane of view for the analyst to review various data points and take necessary actions

## Benefits

The direct benefits of the automation included:

60%

reduction in handle time

2%

Reduction of error rate to 2% from 10-12%

50%

Reduction in operational costs by over 50%

In addition, there was a far reaching impact on the bank's operational resilience. They were able to seamlessly and efficiently maneuver the ebbs and flows in the inflow of loan processing requests and address the market driven rule revisions. With the complete changes in the working environment as a result of the pandemic, the bank was able to reduce the human dependency for operational effectiveness.

Faster turnaround time resulted in improved customer experience. In addition, the bank could act on risky propositions with agility and accuracy. An unexpected impact was the improved employee satisfaction scores, as employees were able to focus on value added tasks and improve their analytical experience.



SLK takes an Intelligent automation first approach to achieving an enterprise's central goals. Being a go-to technology & consulting firm for some of the Fortune 500 companies, we recognize the pace at which technology is transforming & its impact. With SLK's deep understanding of the BFSI domain with serving our 20+ clients & giving them 32% CAGR over 5-years makes us the best partner in the sector.