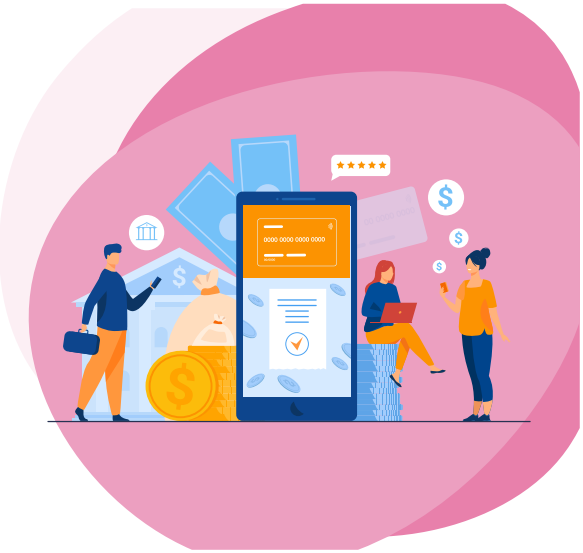
Straive™

Connecting the dots

Processing Customer Onboarding Documents with Automated Solutions

WHITEPAPER

Banks face increasing pressure to remain relevant, digitally competitive, and improve wallet share. This is primarily due to changing customer expectations, fintech disruption, regulatory changes, increasing digital transactions, a competitive landscape, and the need to generate revenue.



To navigate these challenges, banks are investing in digital transformation initiatives. They are enhancing their online and mobile banking platforms, adopting emerging technologies like artificial intelligence and blockchain, and fostering partnerships with fintech firms. By embracing digital innovation, banks can stay relevant, attract and retain customers, and secure their position in the rapidly evolving financial landscape.

Commercial banks are facing the same challenges. In addition, the banks cannot take their loyal client base for granted because corporate customers have banking relationships with several institutions. For instance, according to a survey, one-third of executives of companies with annual revenues of US$1 billion or more said their company had a banking relationship with 10 or more institutions.Then there is the ever-present threat of switching decisions triggered by the quality of digital capabilities, product offerings, and customer service as key variables.

On their part, commercial banks are proactively digitizing workflows and enhancing client interfaces. However, customer onboarding is still fraught with challenges. For example, loan applications go for multiple approval rounds, with customers asked to provide the same information at various touchpoints. To add to the challenges, there is an opaqueness around the approval status. Research shows that onboarding a new client often takes weeks to complete. In addition, debilitating financial penalties and sanctions can follow if commercial banks fail to comply with Anti-Money Laundering (AML) and Know-Your-Client (KYC) regulations.

Therefore, quick and efficient customer onboarding in commercial banking has become synonymous with excellent customer experience. Significantly, a Commercial Banking Customer Onboarding Document Automation solution would assist commercial banks in transforming their end-to-end client onboarding and customer experience, future-proof regulatory compliance, and enhance operational efficiency.

Document Automation Solution for Faster Customer Onboarding

According to industry estimates, the Know-Your-Customer due diligence, legal documentation review, and credit due diligence comprise 40-50% of the onboarding time. These processes require close review and data extraction from a large volume of highly variable documents. Collecting and verifying data for commercial banking customers is a complex process. It is challenging due to the following reasons:

1. Wide range of document types, formats, and quality levels
2. Significant volume of documentation
3. Variations in specific requirements and onboarding processes
4. Complicated regulatory and compliance demands
5. Meeting turnaround time and customer expectations

These challenges cause multiple bottlenecks in the onboarding process and call for a more intelligent capability to process customer documents, customer websites, government registries, and sanctioned entity lists.

Hence, a customer onboarding document automation solution would assist commercial banks in significantly speeding up the onboarding process and enhancing customer experience.

Automation is the Key

Automating document processing is about using the power of Artificial Intelligence (AI), Machine Learning (ML), and Computer Vision (CV) to extract and transform data into consumable formats for deriving insights.

The process can be deconstructed as extracting information, categorizing and transforming the information, and releasing the classified/annotated data back into the business process for analysis.

One of the key advantages of a customer onboarding document automation solution is its ability to handle a wide variety of unstructured document formats, like scanned images, PDFs, emails, word documents, and presentations. This means commercial banks can automate the processing of paper-based and digital documents, reducing the time and resources required to process them manually. The knock-on impact for commercial banks is the significant reduction in customer onboarding time.

Another advantage is the ability to learn and improve over time. ML algorithms become more accurate and efficient as the system processes more documents. The learning process continuously improves overall speed and accuracy.

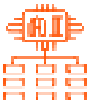
Functional and Technical Requirements for Onboarding Document Automation Solution

The functional and technical requirements for a customer onboarding document automation solution vary based on the specific needs of a commercial bank. However, some of the standard requirements are:

The solution should have the following functionalities:

Document Generation:

Generate a wide range of customer onboarding documents, such as account opening and KYC forms, contracts, agreements, and disclosures. Support templates and dynamic content generation to ensure accuracy and consistency across documents.



Data Integration:

2.Integrate with internal systems and databases to automatically retrieve customer information and pre-fill relevant data into the onboarding documents. Ability to validate and verify customer data against external sources, such as identity verification services or credit bureaus.

Workflow and Approval Management:

Customizable workflows to manage the review, approval, and signing processes of onboarding documents. Facilitate collaboration between stakeholders, such as relationship managers, compliance officers, and legal teams, to ensure efficient processing.

Compliance and Regulatory Requirements:

Incorporate compliance checks and validations to ensure adherence to regulatory requirements, such as AML and KYC regulations. Assist in the capture and storage of necessary customer identification documents securely.

Document Storage and Retrieval:

Provide a secure, centralized repository to store completed onboarding documents. Robust search and retrieval capabilities, allowing authorized personnel to access and retrieve customer documents easily.

The solution should also incorporate the following technical aspects:

Integration Capabilities :

Integrate with existing systems, such as core banking systems, Customer Relationship Management (CRM) platforms, and compliance tools. Support data exchange through Application Programming Interfaces (APIs) or other integration methodologies.

Scalability and Performance:

Handle high volumes of document generation and processing, ensuring fast response times and scalability to accommodate increasing customer onboarding demands.

Security and Compliance

Adhere to industry best practices for data security, encryption, and access controls. This adherence will ensure the confidentiality and integrity of customer information. Comply with data privacy and protection laws, including the General Data Protection Regulation (GDPR).

User Interface and Experience:

Offer easy navigation, document customization, and intuitive interactions. Support multiple devices and screen sizes to accommodate all users, including bank employees and customers.

Reporting and Analytics

Provide reporting and analytics capabilities to track and monitor the onboarding process, document completion rates, and bottlenecks. Offer insights to help optimize the onboarding workflow and improve operational efficiency.

These functional and technical requirements should be regarded as a starting point for a customer onboarding document automation solution. Having said that, it is essential to consult with relevant stakeholders, including compliance officers, legal teams, and IT experts, to gather specific requirements based on the banks' unique needs and regulatory environment.

Blueprint for an Ideal Customer Onboarding Document Automation Solution

For commercial banks to fully realize the benefits of automation, the solution should have the following key components:

1. Document and Data Import

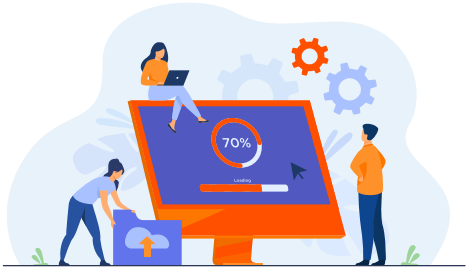
a. Functional: Facilitate the automatic or manual import of documents to be processed. The operator should be able to manually import documents and set a processing priority for all the downstream steps.

b.Technical: Aid in the importing of standard document and image formats through the sweep of watch folders, email inboxes, direct integrations, or APIs

i. Image/document formats include PDFs (image only and image plus text), Microsoft Office Documents (Word, Excel, and Visio), TIFF, PNG, JPG, and other standard image formats.

ii.If provided, metadata files -- batch information and other control data-- must be imported and associated with the documents.

2. Preprocessing



a. Functional: An unattended process for standardizing and preparing documents or images for downstream classification and extraction processes. This would include image enhancements, image/document conversion, CVF, etc.

b.Technical: Facilitate the following types of preprocessing:

i. Image enhancement: Despeckle, Deskew, black border removal, rotation, etc.

ii. Document/image conversion: conversion of all the support document and image types to the supported format(s) with the required CV layer.

iii. Document/image normalization: checking the size and dimension of the image to ensure it can be processed. Documents that do not meet specifications should be automatically converted.

iv. PDF normalization: some documents may be saved as a PDF but not in a "valid" PDF format and require conversion to a supported format.

v. Translation: this may only be required in some cases. If needed, the translation should be done.

3. Classification

a. Functional: This should be an unattended process for classifying the document type and performing automatic separation if multiple documents are within the file. For example, a single PDF contains three documents. The expected result would be the creation of three new PDFs, each classified as their corresponding document type.

b. Technical: Leveraging AI and ML with Natural Language Processing (NLP) and CV models to handle a large amount of variation and similarities across document types as a rules-based approach will not scale and have a high cost to set up and maintain that will be prohibitive.

4. Human in the Loop – Classification Validation

a. Functional: Attended process where the operator interacts with the documents that fall below the defined confidence threshold determined during the classification process. At this point, two types of errors—document classification and document separation-- are addressed.

b.Technical: Offer the ability to address document classification and separation issues with the least amount of human intervention, keystrokes, or mouse input.

i. Operators should be able to:

1. Change the classification of a document
2. Change the order of pages
3. Change or create new document separation points or boundaries

ii.Changes made at this point will have to be tracked for two purposes:

1.Audit: Who, what, when, and Where
2.Potential model or rules updates

5. Entity/Field Extraction

a. Functional: Unattended process for locating and extracting entities, fields, or features defined for specific document types.

b. Technical: Leverage NLP with Named Entity Recognition (NER) and CV models to extract the required entities and fields, as templates or rules-based approaches will not handle the type of data that needs to be extracted with the variance and scale seen in these documents.

i. NER will be required as a significant portion of the required data will be buried in sentences and paragraphs and not in key-value pairs.

ii. CV must identify visuals or graphics that need to be tagged, such as organization charts.

6. Human in the Loop – Extraction Validation

a. Functional: This is an attended module where the operator will interact with the fields/entities that fall below the prescribed confidence.

b. Technical: This module will need to provide the ability to address field/entity extraction issues with the least amount of human intervention, keystrokes, or mouse input.

i. Operators should be able to:

1. Manually enter a value from the image if it could not be extracted because of poor quality

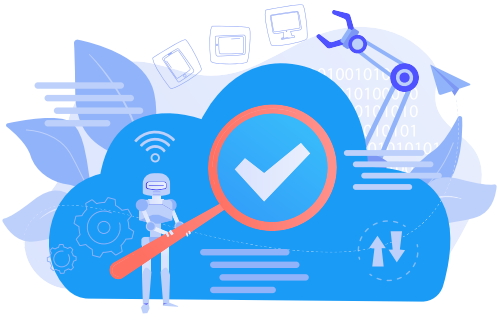
2. Highlight or zone good-quality fields to pull back the underlying data and flag that field for a potential model review

3. Interact with standard business rules such as:

    a. Missing mandatory fields
    b. Ambiguous results
    c. Failed cross-field validations

ii. Changes made at this point should be tracked for audit and updation purposes.

7. Model or Rules Update



a. Functional: This would be executed where an operator can review documents flagged in the classification or the extraction validation phases to determine if they should be added to any AI models or if an additional configuration is required to handle the variant.

b. Technical: The system will process the documents as soon as they are processed. This module must access a stored copy of the document to prevent this offline process from causing delays in delivering the content to the customer.

8. Post Processing

a. Functional: Perform post-processing tasks before the quality control and delivery processes. This would include firing additional business rules on the fields and documents to ensure they are in good order, performing content transformation, and other data routines after the validation process.

b. Technical: Perform the following types of processes:

i. Standardizing data formats

ii. Document-level field validations

iii. Final inventory of documents and pages after the classification, extraction, and validation process and reconciliation against any control data sent with the original documents.

9. Quality Control

a. Functional: Attended module that will facilitate two significant functions :

i. Review of a defined percentage of completed work to perform quality control and to gather quality metrics

ii. Management of exceptions created during the post-processing phase

b. Technical: The system should allow for a percentage of the completed documents to be sent for a quality check before being sent for delivery.

10. Delivery

a. Functional: An unattended process that will manage the process of delivering the processed documents and data to the customer's systems

b. Technical: The system will have to be capable of sending all of the following to one or multiple output streams to the customer via flat file, XML, database updates, API, JSON, or other common interface methods. Depending on their underlying infrastructure, the customer may need to send data and images to multiple systems/files.

i. Original images

ii. Final images (the result of processing)

iii. Extracted and enriched data

iv. Metadata from the documents and processing

1. Who, what, when, and where for audit and compliance. This will be down to the field level. I.e., where did the solution extract this field?

v. Performance and quality metrics

Benefits from Customer Onboarding Document Automation

Using AI and ML to extract and validate the information from documents, businesses can offer their customers a frictionless onboarding process, enhanced customer experience, and build ongoing customer relationships.

Improved customer experience

Enables a seamless onboarding experience with real-time updates and personalized communication. Furthermore, accurate and timely documentation processing reduces or eliminates unnecessary requests for additional documentation.

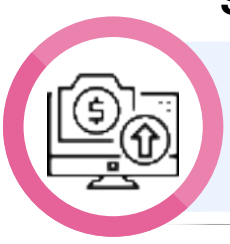
Automation without the implementation bottlenecks

Accelerates the implementation of an end-to-end solution that includes technologies, people, and operational processes.

Efficiencies

An automate-first approach with nearshore or offshore operational resources to manage exceptions helps banks reduce processing time, Total Cost of Ownership (TCO), and errors.

Scalability



Facilitate the scaling up or down to meet volume fluctuations without sacrificing customer experience.

Improved accuracy

By combining automation with the expertise of SMEs in managing exceptions, there is a comprehensive evaluation of customer data, leading to a boost in accuracy levels.

Fast Returns on Investment

Flexible pricing and contracting options provide immediate returns on investments.

Conclusion

Automating the commercial bank customer onboarding document processing offers increased efficiency, reduced errors, and improved customer experience. Suppose the automation is combined with the expertise of unstructured content experts. In that case, extracting data from millions of unstructured documents central to commercial banking customer onboarding is simplified.

Furthermore, commercial banks will be better served if they leverage the services of vendors whose engagements cover documentation and data-intensive industries such as Financial Services, Publishing, Information Services, and Life Sciences.

A technology-enabled outsourcing provider has a stake in ensuring that the technology implementation meets or exceeds business performance expectations. It is critical for the vendor to achieve contractual obligations and operational milestones.

Moreover, a continuous process improvement model that begins when the project goes live will continue to identify additional opportunities for operational improvement through improved business processes and increased automation.

Straive utilizes market-leading technology and people to solve complex data and content challenges. We provide Data as a Service supported by Data Experts (SME) and Operational support to deliver high-quality structured data and insights. As a provider of artificial and human intelligence, Straive offers solutions that drive business processes or create insights.

As a technology-enabled outsourcing provider, Straive's Commercial Bank Customer Onboarding Document Automation solution delivers:

- Increased scalability
- Reduced costs
- Enhanced customer experience
- Improved accuracy and compliance

For more information on our customer onboarding solution for commercial banks, visit www.straive.example.com or write to us at straiveteam@straive .com

About Straive

Straive is a market-leading content technology enterprise that provides data services, subject matter expertise (SME), and technology solutions to multiple domains, such as research content, eLearning/EdTech, and data/information providers. With a client base scoping 30 countries worldwide, Straive's multi-geographical resource pool is strategically located in seven countries - the Philippines, India, the United States, Nicaragua, Vietnam, the United Kingdom, and Singapore, where the company is headquartered.

www.straive.com
straiveteam@straive.com

References:

1.https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fsi-future-of-commercial-banking-industry.pdf.
2.https://www.bai.org/banking-strategies/top-reasons-why-customers-switch-banks/
3.https://newsroom.ibm.com/2020-10-05-IBM-Fenergo-to-Transform-New-Customer-Onboarding-for-Financial-Institutions