

ING

Case Study

Case Study: ING

Conpend's mission to support international financial institutions in their digital transformation journeys is grounded in operational reality. Trade finance transformation is not a theoretical exercise. It is a structured evolution of processes, controls and decisioning frameworks where value must be realised early while enabling long-term scalability and regulatory alignment.

What This Means for Your Trade Team

- Trade finance is not failing because of lack of systems
- It is failing because workflows are still manual and fragmented
- AI is not about digitisation. It is about decision orchestration
- The banks that move first will redefine operational benchmarks



For banks, this journey must accommodate both internal constraints such as legacy infrastructure, risk frameworks and audit requirements, and external dependencies across counterparties, documentation standards and global supply chains. These constraints are not barriers. They are design inputs.

Our approach is reflected in our automation capabilities for trade finance document examination and data management. Automation in this context is not simply digitisation. It is the controlled application of AI and machine learning to augment trade operations, standardise decisioning and embed compliance into workflows.

By automating document checking against structured rule sets including ICC standards, AML policies and internal risk frameworks, banks can materially improve processing efficiency while strengthening auditability and control. This enables operations teams to move away from manual, document-by-document review and towards exception-based processing and risk-focused decisioning.

This extends beyond trade finance into adjacent domains such as KYC, client onboarding and credit processes, where document-heavy workflows and regulatory scrutiny create similar operational friction. However, trade finance remains one of the most complex and document-intensive environments in banking, making it the clearest use case for demonstrating the impact of AI-driven automation.

For global banks, trade finance remains a core component of corporate banking. Yet despite its scale, it continues to rely heavily on paper-based documentation and manual interpretation. The opportunity is not to wait for full digitisation across the ecosystem, but to optimise existing processes today while enabling future transformation.

This is where Conpend and TradeAI operate: introducing structured, intelligent automation into existing trade workflows, improving efficiency, consistency and compliance without disrupting core systems.

Executive summary

Trade finance underpins global commerce and remains a critical revenue driver for many banks. However, it is also one of the most operationally intensive and document-dependent functions within banking.

The Trade Finance Reality Check

- 50–100+ pages per transaction
- 30–60 minutes manual handling per case
- €12M+ annual cost leakage per bank
- Billions in compliance fines globally



At the core of trade finance processing sits document examination. Letters of credit, bills of lading and commercial invoices must be reviewed against regulatory requirements, internal policies and international standards such as UCP600. These checks are still largely manual, typically performed within operations centres under significant time and cost pressure.

This creates structural challenges for banks. Scaling operations remains difficult due to fluctuating volumes and dependency on skilled resources. Regulatory requirements continue to evolve, increasing the complexity of compliance checks across AML, sanctions and KYC. At the same time, valuable transaction data remains underutilised due to fragmented systems and unstructured formats.

AI-driven automation provides a practical solution. By applying machine learning and rules-based logic to document checking, banks can reduce manual effort, improve consistency and unlock structured data from trade transactions. This enables faster processing, reduced error rates and improved auditability.

Automation also supports more flexible operating models, including distributed processing and remote working, while enabling banks to retain and scale institutional knowledge through system learning.

As banks continue to modernise their trade finance operations, automating document checking is emerging as a foundational capability. Over time, this can extend into broader workflows including onboarding, compliance monitoring and credit processes, supporting a more integrated and data-driven operating model.

The trade finance environment

Trade finance supports a significant proportion of global trade flows, yet its operational model remains heavily dependent on documentation. Every transaction requires detailed document examination to ensure compliance with regulatory frameworks and commercial terms.

These checks serve both regulatory and risk management purposes. Compliance with ICC rules provides legal protection in the event of disputes, while AML, sanctions and fraud checks mitigate financial crime risk.

Paper persists in the supply chain

Trade finance processes span multiple stakeholders across global supply chains. Documentation remains largely paper-based, with each transaction typically involving multiple documents and extensive page volumes.

Despite industry-wide digitisation initiatives, document verification remains one of the least digitised areas. Many banks continue to rely on physical documentation, reflecting the limited control they have over counterparties and external processes.

As a result, banks have adapted by centralising document checking in operations centres, often offshore, where manual review remains the dominant model.

Any efficiency gains must therefore work within this reality. Solutions must handle both paper and digital inputs while integrating into existing workflows without requiring ecosystem-wide change.

A laborious process prone to error

Manual document checking is time-intensive and operationally expensive. Processing times increase with transaction complexity and value, often requiring multiple levels of authorisation.

At scale, this creates significant resource demand. High transaction volumes require large teams performing repetitive tasks, limiting scalability and increasing operational cost.

Manual processes are also inherently inconsistent. Human error, fatigue and interpretation differences introduce risk, particularly in areas such as AML, sanctions and regulatory compliance.

The financial impact of non-compliance remains significant, with regulatory fines and remediation costs continuing to rise. As compliance requirements expand, banks must allocate increasing resources to control activities, further intensifying operational pressure.

A skills challenge

Trade finance expertise is specialised and experience-driven. However, the workforce is undergoing structural change, with experienced professionals retiring and new entrants less familiar with manual, paper-based processes.

This creates both risk and opportunity. While knowledge gaps may emerge, new entrants bring digital capabilities and expectations of automation.

For banks, the challenge is to embed expertise into systems, enabling consistent decisioning while supporting workforce transition towards higher-value, exception-based roles.



How automation can help

Trade operations require a shift away from manual, page-by-page document review towards structured, automated processing.

AI and machine learning enable this by analysing documents against predefined rules, identifying patterns and flagging discrepancies for human review. This introduces consistency, reduces manual effort and strengthens compliance control.

Automation enables distributed processing models, where documents can be digitised and processed across global operations centres with minimal delay. Human intervention is reserved for exceptions, allowing skilled staff to focus on higher-value activities.

AI systems continuously improve through machine learning, refining accuracy and adapting to new document types and regulatory requirements. This creates a compounding effect where performance improves over time.

TradeAI exemplifies this approach. It integrates into existing trade environments, ingesting both paper-based and digital documents, extracting structured data and applying compliance checks aligned with ICC, AML and sanctions frameworks.

This allows banks to automate document examination without requiring upstream digitisation, bridging the gap between current operational realities and future digital models.

AI at work

Conpend is a software developer focused on helping banks and other FIs on their digital journey. The aim is to use AI and ML technology to automate previously laborious manual-only processes – liberating operatives, compliance officers and relationship managers to undertake more meaningful tasks and to generate operational efficiencies. With respect to trade finance, Conpend has developed the TRADE AI app specifically to encourage automation and digitization of the supply chain while accepting the current situation with respect to documentary checking.

ING: What Actually Changed

- Document checking moved from manual to AI-led
- Exceptions, not documents, became the focus
- Processing time reduced significantly
- Staff moved from checking to decisioning
- No job losses. Higher job satisfaction

Under the app, the AI process is simple but effective. First, the paper-based documents are scanned and enter the AI application, which 'reads' the contents and checks them against a set of pre-defined rules. Some of these rules will be pre-determined according to compliance and internationally defined legal checks.

Handling document checking in this way automates the otherwise people-based process that takes many hours. Only anomalies, flagged by the application, are manually checked, at which point operatives can make the best use of their evaluation skills to add value to the process.

When people undertake a regular activity, they learn from it and build experience that they bring to bear on the task, performing better the longer they work at it. The same is true of an AI application. Through ML, it builds 'knowledge' from all the transactions it has processed. And this automatically feeds into application updates, generating continuous improvement. If corrections have to be made, the application will then make the necessary adjustments on future documents.

The impetus behind digitizing the trade finance process has been the need to tackle the inefficiencies of paper-based processes. Yet the automation of document checking applies across the board. Whether documents arrive by hand or electronically, the benefits are the same – an automated checking process that increases efficiencies exponentially.

Those documents that do arrive by courier, usually at the bank's headquarters, are first digitized (i.e. scanned). Meanwhile, electronic documents enter straight into the digitized application. In this way, AI transforms document checking and data management, without imposing change on clients and stakeholders, who can continue to provide documents in a range of formats, according to their own processes.

Digitization is a must for every company

Automation extends beyond document checking into broader data utilisation. Structured data extracted from trade documents can support downstream processes including payments, reporting and risk analysis.

TradeAI transforms documents into data assets, enabling banks to integrate trade workflows into wider digital ecosystems while maintaining compatibility with existing processes.

This approach supports incremental transformation. Banks can enhance efficiency today while building the foundation for fully digital trade ecosystems in the future.

How automation can help

A change programme

This is a change programme that can digitalize the whole trade finance process, but at the pace of the counterparties' various digitalization journeys. But how do we implement the change?

Certainly, introducing automation into trade finance document checking involves more than selecting and instructing an application to do a job. The initiative should be approached as a change management programme, with due regard to its impact on people, processes and systems. That way, the transformation is more likely to succeed.

Banks embarking on such an endeavour should focus on four different aspects:

1. An end-to-end review

Of the current state of trade finance document checking and data management, including what works and where improvements can be made. An understanding of existing processes and technology investments will be required, so that the implementation.

of AI-based automated document checking seamlessly integrates with other resources and authentication tools (such as Dow Jones, World Check and Oracle) used by the bank. The aim is to improve efficiency and outcomes, not to duplicate or reinvent unnecessarily.

2. Decision-making

The right teams and individuals will need to be involved. This means ensuring that the project has the right decision-makers but also implementing programme management extending to change managers, communications teams and people managers. The business case will depend upon understanding the aims of the project, defining measured outcomes that will determine return on investment, and the agreed involvement of all impacted teams.

3. Objectives and targets

The change programme will need clear objectives that define the purpose of the initiative, as well as parameters for targets and measurement. A target of achieving a 20 per cent time saving, for example, is only meaningful if the team can first measure how long activities take. Working towards targets will require co-operation across the whole business, not just the implementation of a technology solution.

4. Measurement

The programme should be data-driven. After all, digital solutions produce data – usually lots of it. A significant benefit of digitization is that data can be analysed to inform decision-making and support continuous improvement.



Assessing the benefits

Automation addresses the limitations of manual document checking in trade finance. It can cut the time it takes to perform checks, reduce errors and optimize resources. And, without the burden of repetitive tasks, workers can apply their skills to higher value work.

Banks automating in this way can benefit from:

1. Cost reductions

The cost of labour deployed to undertake manual checks can be reassigned to other tasks, contributing significantly to reduced overheads in trade finance document checking

2. Process optimization

Optimizing processes propels banks towards more streamlined operations, integrated systems and effective use of data

3. Efficiency improvements

Automation enables a quicker, leaner, more efficient process. In the earlier cited example of 200 hours spent on transactions requiring second-level authorisation, automating the initial check would halve the required time

4. Innovation

Automation in trade finance increases banks' overall level of digitization. This contributes to organization-wide goals to transform paper-based processes, remove inefficiencies, implement cost reduction strategies and innovate for future growth

5. Improved compliance

Repercussions from regulatory contraventions can be severe, damaging and far-reaching – ranging from fines to jail time for executives. Reputational damage can be significant and long-lasting. Mitigating the risk of failure in document checking processes helps banks be compliant and meet required quality standards

6. Risk reduction

An AI application doesn't get tired or distracted, skip checks by accident or pass something by mistake. It lowers risk for the bank as its checks are not at the mercy of human error. AI is ideally suited to crunch through high volume, repetitive work; people are suited to assessment and decision-making – automation plays to the strengths of both

7. Remote working

Working with paper-based documents requires staff to be in offices. Automation equips banks for flexible location strategies with fewer offices performing specific functions. This is cost-effective, supports employee work-life balance and ensures workloads can be reshuffled in line with capacity and to backfill employee absence

8. Skills optimization

Operations centre employees applying their time to discrepancies revealed by the automated checks can add more value and increase their skills. This makes for more rewarding work, the opportunity to build advanced skills within the organization and a chance to capitalise on the digital skills of employees entering the workforce

9. Trade inclusivity

Automation affords any supply chain participant the same access to bank operations, even if they are incapable of providing electronic documentation. This helps to keep suppliers in less digitally advanced countries in the system

10. Data analytics

The app retains knowledge of each transaction. This repository of accumulated checks, assessments, results and anomalies can be drawn upon to provide insights. It's a learning system supporting continuous improvement.

The way ahead

Beyond trade finance, other opportunities exist to improve data management and automate document checking. Essentially, any processes that depend on applying a structure to data and comparing that data against set criteria are potential candidates for automation.

A whole range of banking processes involve confirming data quality and ensuring that required information is in place. These include:

1. Customer onboarding and KYC

AI-based automation can simplify the time-consuming process of onboarding customers and suppliers through automated AML screening, identity verification, document authentication, country-specific workflows and due diligence analysis. Tedious and repetitive, error-prone tasks

are carried out by the AI application, freeing-up compliance officers and relationship managers to focus on resolving identified discrepancies. An AI-based automation solution also provides case management with an audit trail, automated client profiling, flexible risk modelling and scoring, and secure information storage.

2. Loans

Digitization and automation can benefit agreement investigations and analysis, and agreement creation, negotiation and approval to save time, increase productivity and provide an automated audit trail. Amendments to existing contracts can be bulk generated while draft contracts can be created from templates. These can then be shared externally and comments or additions can be made directly in the system to be approved or rejected in a configurable workflow.



Automation in action: ING Bank

AI-based automated document checking provides a major boost for ING's trade efficiencies

ING Bank has a well-deserved reputation as one of the world's most innovative and tech-savvy banks. As such, it is constantly looking to see where innovation and, in particular, automation, can add efficiencies – not least in trade finance, another area in which ING is regarded as a leader.

Yet one area of trade finance that has so far resisted digitalization is the checking of documents such as bills of lading and letters of credit. Supply chains – especially those involving small emerging market manufacturers in the poorer countries of regions such as South and Southeast Asia – still rely on paper-based documentation and will do so for the foreseeable future.

Banks on their own cannot solve this. But they can come at the problem with fresh thinking, which is exactly what ING has done. Rather than trying to convert the entire supply chain to digital documentation, ING's propensity for innovation has led them to focus on potential efficiencies within the documentary checking process. The bank accepts that electronic documentation is simply not viable for certain supply chain markets and participants – yet – so instead wants to make the existing process better, with the added benefit of liberating their staff for more meaningful work.

“The app has delivered more than we expected quicker than we expected”

Dermot Canavan,
Trade Operations Manager, ING Bank

Working with Conpend – an Amsterdam based banking software specialist – ING has explored solutions deploying AI based automation for the mundane aspects of documentary processing. These include checking for compliance with ICC rules, as well as against the BAFT AML guidelines and regulatory sanctions screening, including for the OFAC in the U.S.

Automation also deals with the increasing regulatory burden on trade financiers since the 2008 financial crisis, which has resulted in an increase in compliance checks as well as heightened jeopardy for non-compliance. Given this, allowing ING Bank to automate the checking process even while it accepts the continuation of paper-based documentation has been hugely advantageous for the bank.

Conpend's TRADE AI app

ING's innovation is in the integration of Conpend's TRADE AI app, which automatically checks documents against inputted rules and regulations. As has been the case with trade finance departments for decades, documents arrive by envelope and are then scanned and sent through a secure file-share to processing centres in the Philippines and Slovakia. Yet, where operatives once had to laboriously read all the documents before compiling a compliance report, the TRADE AI app now scans the document for key words and phrases. If an anomaly is spotted, a query is raised and one of the operatives checks the document.

The app has the power to convert all documents – whether they are copies, originals, clear or unclear papers – into machine-readable words through optical character recognition (OCR). Yet the app also learns from all previous transactions. Applying the learning to all future documents, the result is a process that is faster and more consistent than any

human checkers can achieve – allowing it to produce analysis as well as recommend actions and solutions, all while constantly improving.

Meanwhile, the operatives are freed from the drudgery of document reading and, as such, can spend more time checking the queries thrown up by the app – all adding to the efficiency gains.

Improved efficiency

For ING the objectives were clear: faster turnaround times, reduced errors and improved interaction with clients for day-to-day activities. And TRADE AI does just that, resulting in ING adopting it as part of their Digital Bank and Robotic Process Automation strategies, including Trade Based Money Laundering and Document Checking.

Certainly, ING has achieved significant cost savings as well as savings on turnaround time as document checking and transactions are processed faster. Not to mention the significant operational simplification and reduction in the probability of error that TRADE AI has made possible.

It is also important to note that the implementation of TRADE AI has not led to any job losses. On the contrary, it has increased job satisfaction at the processing centres as the document checking process was repetitive, boring and time-consuming.

About Conpend

Conpend enables banks to automate document-intensive processes using AI and machine learning, improving efficiency, compliance and scalability.

TradeAI is purpose-built for trade finance, combining OCR, NLP and machine learning to extract, interpret and validate data from complex documents.

Why TradeAI is Different

- Built specifically for trade finance workflows
- Combines OCR, NLP, ML and LLMs
- Aligns with ICC, UCP600, AML and sanctions frameworks
- Designed for real-world document complexity
- Works within existing bank architecture

The platform supports compliance with ICC rules, AML frameworks and sanctions requirements, enabling banks to make faster, more consistent and auditable decisions.

By embedding automation into existing workflows, Conpend helps financial institutions reduce operational friction, strengthen control frameworks and scale trade finance operations effectively.



Case Study References

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