

Promise and Challenge: AI in the Trade Finance Industry

January 15, 2021



Interview with **Graham Bright**, Head of Compliance and Operations, **Euro Exim Bank**

Technology is a two-edged sword. On the one hand, it's moving fast – so it shows great promise for improving systems. On the other hand... it's moving fast – so leveraging it can be a formidable challenge. Graham Bright of Euro Exim Bank explains how he sees the role of AI in the trade finance industry of the future.

EEB has described itself as “future-ready”. What place does the exploitation of leading-edge technology, including artificial intelligence, have in the overall strategy of the company?

Our Future Ready strategy brings clarity and vision to complex scenarios, delivering peace of mind, lower lifecycle costs and resilience, making not only our applications but our infrastructure ready for future challenges.

In competitive, fast-changing markets with significant events, we have not let up in our investment in new technologies, which optimise the systems we use, enhance and simplify the way we use them, and draw best value from the data and information available to us.

In terms of planning, analytics, audit and longevity, our systems have been carefully developed with specialist trade experts and IT to provide ease of integration, implementation, security and functionality specific to our business sector.

Add to this our extensive use of cloud technology, protection of data with DR and backup processes, we are confident that, whatever significant event, demand or challenge may be thrown at us, we are not only able to contain, but to control and manage and continue. And AI is just one of the technologies already implemented and used in defined areas today, with the prospect of greater usage in future.

What do you see as the most promising areas for the deployment of AI in the industry?

Before looking at promising areas, what is meant by AI? Not the areas of translation services, chatbots and autonomous vehicles but, in our market sector, a more general meaning, namely "self-learning systems that can learn from experience with humanlike breadth and surpass human performance on all tasks".

Artificial intelligence is changing the way that players in trade do business, helping to make trade assets more efficient, affordable and competitive.



The commercial focus is mostly on compliance and due diligence, such as natural language processing to create comprehensive profiles of individuals or businesses involved in a transaction, based on extensive web searches. Other compliance applications scour trade finance documents to find anomalies – for example discrepancies between the price per unit of a product and the final invoice value.

The overwhelming volume, variety, velocity and value of data cannot be ignored, and neither can the efficiency and accuracy of AI solutions. We now see products

that allow the complete automation of trade finance document processing, analysing documents, digitising and extracting data before feeding it into transaction processing, audit and information systems.

AI technology has evolved enough to combine compliance and portfolio management capabilities and bring the ecosystem of trade finance closer together.

Can you give us a hint of any specific plans that your company might already have for the use of AI in the future?

We see AI as one of the building blocks of our internal systems architecture, supporting changes in the way we work. The industry has long spoken about paperless banking, and the nirvana is true paperless trade, although the proprietary, non-standard nature of the systems, process, documents and regulation means this may be some years away.

What do you think are the principal challenges for the industry in leveraging AI?

AI promises much. The reality is that there are still significant challenges.

Firstly, consistent data quality. It takes time, resource and effort to perfect the collection of unbiased, meaningful, trusted data. Having a data-quality programme in place is a prerequisite to any large-scale AI initiative.

Secondly, an autonomous black box. Leaving everything to a process operative at light-speed can be daunting. Options are not verifiable, doubts can creep in, reasonable action vs best action are hard to assess, and a perceived loss of control can undermine the task in hand. Speed does not always enable efficiency.

Thirdly, specific focus. AI cannot solve everything – it needs to be applied in specific situations for unique roles. Detecting suspicious trade information in a letter of credit would not mean an ability to track suspicious payments. Also, AI does not 'take a view', but relies on rational rather than emotional process, without the ability to discern context, tone or empathy. The computer can say 'no'.

Fourthly, and perhaps most importantly, responsibility and liability. Intelligent machines may be the goal, but at what cost, and who is ultimately responsible? Humans are still needed to oversee business functions, and are not yet able to delegate regulatory and compliance obligations to critical automated processes, and how long will it be before the automated system is challenged in court?

Do you foresee decision-making being taken out of the hands of managers, to become the sole province of machines?

No, as mentioned above, there is still a significant role to be played by real people, managing the process, dealing with exceptions, liaising with regulators, ensuring

compliance, taking unique and often hard decisions.

Would you say that AI could be valuable in reducing the risk inherent in international trade?

There is certainly value in implementing AI, especially in improving the dissemination of trusted, unambiguous electronic forms, no more wet signatures on documents, faster ID and KYC checks, data sharing and general digitisation of documents into standard formats.

How might AI be applied towards, for example, improving the security of transactions?

AI can help monitoring of data in real time, spot oddities for further investigation and eliminate or reduce the occurrence of payment frauds committed by professional cyber-criminals.



Payment frauds are now more sophisticated and often exceed the detection capabilities of rules-based systems. They have different patterns or digital footprints, structure and sequence, and are not detectable with predictive modelling and rules logic only. It might have been possible in early e-commerce days, but now greater AI is needed to confront the constant challenges of dealing with high-volume, often state-sponsored, complex payment fraud schemes.

AI provides real-time fraud prevention. Businesses with AI-based secure payments have an immediate advantage over those that don't, since the fraudulent payments are detected almost instantly with real-time analysis of payments data. As AI

companies compete with each other to provide faster solutions, the response rate for risk calculation is increasing.

With the advancement in technology and the rise of sophisticated cyber-criminals, financial institutions are now leveraging AI to ensure secure payments and improve customer experience.

Predictive analytics of AI and machine learning combined can find discrepancies in large data sets within seconds. As a machine-learning algorithm works more accurately with more data, it provides better predictive values. While ensuring secure payments, AI algorithms can distinguish fraudulent and legitimate transactions with greater accuracy.

With the advancement in technology and the rise of sophisticated cyber-criminals, financial institutions are now leveraging AI to ensure secure payments and improve customer experience. Though some small organisations may not be able to move to advanced analytics and AI immediately, they can begin by analysing existing data and building the expertise required to start as early as possible.

What might the benefits be in terms of carrying out checks on compliance?

Certainly speed, exception processing, defined, universally accepted results. But AI cannot succeed by itself. AI models are extremely dependent on educated and experienced expertise, and therefore collaboration between human and machine is mandatory to perfecting AI in order to rely on it to drive consistent, auditable, and accurate decisions.

AI is very good at dealing with tasks on a large scale and in super-quick time. It's not that AI is more intelligent than the human brain, it's just that it can work at much faster speeds and on a much bigger scale, making it the perfect fit for the data-heavy world.

For compliance purposes, this makes it an ideal solution for double-checking work and an accurate detector of systemic faults, one of the major challenges that regulators in the financial sector in particular have faced in recent years.

Rather than a replacement for humans in the compliance arena, AI is adding another layer of protection for businesses and consumers alike.

When it comes to double-checking work, AI can pinpoint patterns or trends in employee activity and customer interactions much more quickly than any human, enabling remedial action to be taken to ensure adherence to regulations.

Similarly, by analysing the data from case management solutions across multiple users, departments and locations, AI can readily identify systemic issues before they take hold, enabling the business to take the necessary steps to rectify practices to guarantee compliance before they adversely affect customers, and before the business itself contravenes regulatory compliance.

Again, it's not a case of replacing humans but complementing existing processes and procedures to not only improve outcomes for customers, but to increase compliance, too.

At its most basic level, AI can minimise the time taken to complete tasks and reduce errors, which, in theory, makes it the ideal solution for businesses of all shapes, sizes and sectors. For highly regulated industries, where compliance is mandatory, it's not so clear-cut.



While there are clearly benefits to be had from implementing AI solutions, for the moment they should be regarded as complementary technologies, protecting both consumers and businesses by adding an extra guarantee of compliant processes.

While knowledge and understanding of the intricacies of AI are still growing, it would be a mistake to implement AI technologies across the board, particularly when a well-considered human response to the nuances of customer behaviours and reactions plays an important role in staying compliant.

That's not to say that we should be frightened of AI, and nor should the regulators. As the technology develops, so will our wider understanding. It's up to businesses and regulators alike to do better, being totally transparent about the uses of AI and putting in place a robust, reliable framework to monitor the ongoing behaviour of AI systems.

Many worry that AI inevitably translates into job losses. Do you see that as inevitable in your industry and, if so, how can it be addressed?

Job losses in the short term are inevitable, but not as a direct result of AI. The immediate threat is the worldwide effect of the pandemic, with firms evaluating whether to bring back furloughed staff in an economic downturn.

Staff effectiveness, locations and cost are primary factors as firms review tasks and costs, especially maintaining and redeploying staff where possible.

Recent AI advances, while seemingly impressive, are very narrow in scope and require a lot of human supervision and input to work in real applications.

Recent AI advances, while seemingly impressive, are very narrow in scope and require a lot of human supervision and input to work in real applications. While as many as 47 percent of current jobs contain tasks that may be automated, fewer than 5 percent of jobs will be fully automatable by 2030. The actual percentages may be lower, as technology adoption lags behind technology development due to costs in implementation, maintenance, and overcoming cultural

and regulatory hurdles.

As with many new technologies, AI tools will augment and not replace workers by automating subtasks of a job. For the jobs that AI will displace, the impact will vary greatly across countries, industries, education levels, socioeconomic status, age and gender. These disparities may have socially and politically destabilising effects.

To alleviate short-term economic impact, it is important for governments to enact policies that value human capital and help displaced workers transition to new jobs in growing industries, such as healthcare and education.

EEB has invested much in developing its team of experts in the field. How do you see AI as fitting in to the company's processes? Do you see the technology as an alternative to "the human touch", or as augmenting it?

Definitely augmenting it. Where economies have relatively low costs of living and wages, costly technology will not be implemented for some time.

AI depends on having large quantities of high-quality data from which the systems can "learn". What do you see as the principal sources of such data in the case of your industry?

The data elements involved in trade are many and various, and non-standard, including export, import, volume type, location, tax, regulation, tariffs, etc. Additional information includes standard units of quantity, weight, etc., such as commodity codes with individual products classified using six digits, four or two numbers for national purposes, country of last-known destination for exports, or the country of origin/consignment for imports.

Then there are recommended standard units of quantity for weight, length, area, volume, electrical power, and number, and customs value should, to the greatest extent possible, be based on the price actually paid or payable for the goods being

valued. The WTO Agreement on Valuation also allows countries to include in, or exclude from, the customs value, in whole or in part, such components as (1) the cost of transport of the imported goods to the port or place of importation; (2) loading, unloading, and handling charges; and (3) the cost of insurance.

Some may say that AI, with its dependence on huge data resources, is firmly in the domain of large corporations, so that smaller companies could be, to some extent, locked out of the competitive arena. Do you see a future in which small to medium-sized companies struggle to compete through lack of access to adequate data?

Yes, in the short term, access to cost-effective data will restrict some SMEs from being as cost- and process-efficient as larger companies. We do, however, see an increase in the number of specialist firms offering data and API technology at affordable rates to engage with smaller companies.

Could competition in the future, even among large corporations, hinge on who has access to the best data and, hence, the most effective AI?

As seen in volatile equity markets, microseconds can mean the difference between profit or loss.

Yes. As seen in volatile equity markets, microseconds can mean the difference between profit or loss. Access to fast quant-strategy analytical engines linked to secure fast communications will inevitably be easier to maintain and exploit for larger organisations.

In trade, with fewer time constraints, emphasis will be on getting the data correct, trusted, shared and valued, and this is available to all players in the ecosystem.

Are you unreservedly optimistic about the possibilities offered by AI technology for the industry, or are there any aspects that worry you?

Unreservedly optimistic? No, caution is required, as witnessed in 2012 with a catastrophic outcome in programmed trading, compounded when a program at Knight Capital went rogue. It sent out trade orders that were costing nearly \$10 million per minute. Staff eventually found and disabled the code, but the damage was done.

Heeding serious lessons, trading firms today have implemented automated high-speed trading algorithms accounting for more than half of all US stock trading, with specific controls, regulatory obligations and a high degree of oversight.

Computer programs send and cancel orders tirelessly in a never-ending campaign to deceive and outrace each other, or sometimes just to slow each other down. But are they intelligent? No, they just act on pre-programmed instruction. Financial organisations need to be fast and correct; for example, sources from MNC Bank in India assert that one small error regarding price movements could destroy their margins for the entire year.

For AI to be most effective, the incorporation of AI into the trade industry will require the development of a range of new standards, enabling improvement of warehouse management, demand prediction, and greater accuracy of just-in-time manufacturing and delivery. Robotics can increase productivity and efficiency in packing and inventory inspection.

Business can also use AI to improve physical inspection and maintenance of assets along supply chains, and we stand ready to enhance and implement as and when necessary to improve data flows and information sharing.

[Go to top](#)

Executive Profile



Graham Bright is the Head of Compliance and Operations at [Euro Exim Bank](#). He has more than 35 years of experience in the finance industry in a number of roles, working collaboratively with industry utilities, regulators and central banks, and in consulting and partner/channels management. He holds a BA (Hons) degree in Business Studies, and is also a serving UK Justice of the Peace in the magistrates' court, having sat on criminal and proceeds of crime trials, and he also sits on Crown Court appeals. Graham is a regular contributor to trade journals (GTR, TFR), with published thought-leadership articles in the financial technology press, and a speaker at international trade industry conferences, such as SIBOS, GTR and Ripple Regional events.
