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The role of data in the new year of trade

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Data will be at the centre of a brave new world in trade finance As a term, data is often used nowadays to specifically describe information captured electronically, but the whole history of trade finance is an attempt to solve one simple data problem; the information asymmetry two trading counterparties have about each other.

'Can they/will they pay?', 'can they/will they deliver the goods?' 2,500 years ago in ancient Sumeria, people were carving promissory notes on clay tablets to try to answer these questions. If these data points were truly and freely available, the global trade industry would be transformed overnight.

Collecting the data: making sense of the paperwork

Technology has created a revolution in our ability to collect, process, and use the information that we have; but we still don't have a solution to that first most basic problem.

The original and biggest pain point in the quest to collect trade data efficiently is the physical reliance on paper.

This led to the rise of optical character recognition (OCR) solutions; the ICC Global Survey 2020 suggested that 28 percent of banks are using some form of OCR solution today, and this is often the first step trade banks take towards digitalisation – a relatively 'quick win' from an efficiency perspective.

Back in the early 2000s, it was normal for document checkers looking at letters of credit to receive presentations on very fine rice paper of varying sizes for the Indian subcontinent. In seeking solutions to the paper problem, the first challenge was how to capture a digital image of the document – Western scanners were not able to accommodate these very thin sheets of paper.

This challenge requires flexible software that can handle unstructured documents, poor copies, variable paper types and sizes, multiple languages on the same piece of paper, and of course, reliable noun extraction and recognition to spot the names of counterparties and the goods description. The technology is getting better, but it is far from 100 percent accurate.

Next comes the Internet of Things (IoT). While IoT is revolutionising industrial production through a global network of physical devices that can collect and send data, the result is a gigantic output of new data which could be valuable to all aspects of trade – once we identify how to process and use it.

The most obvious benefits for trade come in the form of real-time, increasingly detailed

levels of information that can be collected throughout the supply chain – not just the location of the goods, but regular reporting of the temperature of a shipment of frozen fish, or where exactly in the port a container might be stuck, for example.

And any item of data that can be collected can be linked to a financial transaction. Movement of goods can trigger a Distributed Ledger Technology (DLT) smart contract to transfer ownership and/or money. We have already seen innovative uses of IoT for environmental, social, and governance (ESG) monitoring purposes: remote cameras in factories providing monitoring to ensure labour standards are met, for example. Pioneering corporates are already linking ESG data to incentives built into supply chain finance structures.

Processing the data: finding the needle in the haystack

It's clear that this influx of unstructured data is going to require a new approach to take advantage of its huge potential. There are already those seeking to develop rule-based engines and machine learning algorithms that will process the incoming data and transform it into rapid document checking and instant compliance checking.

Interoperability of systems is also going to be critical to allow this data to move from the source device to where it needs to go. A trade platform in future may need to be able to accept Application Programme Interface (API) connections from parties including insurance companies, freight forwarders, and environmental auditors. What's more, DLT solutions which hope to transform world trade into a truly

paperless environment will also need to be able to communicate if they are to reach global critical mass.

Using the data: the brave new world

Once we have all this data in a form we can use, what are we going to do with it? Within trade finance, some obvious gains will be in strategic analytics, increased efficiency from data sharing across market participants, and the potential for the true digitalisation of the trade flows of the world.

Efficiency

The more we digitise the transport of data, and remove the need for manual data capture, the more we can expedite the process to improve transaction processing speed. This isn't just an improvement in service

quality from the corporate's perspective; every hour saved on average across millions of trade transactions impacts its risk management, working capital, and overall financial health. As the share of e-commerce increases, turnaround time becomes ever more critical.

Integration of systems allows for 'data once' concepts to be implemented and ends the perennial trade problem of duplicate data entry. Initiatives such as SWIFT's LEI (legal entity identifier), and networks such as JP Morgan's LIINK – which allow market participants to share information supporting KYC and compliance checks – have an enormous impact on time to market, as well as saving the corporate client from having to produce a similar document pack for each of their bank relationships.

Strategic analytics

Many multinationals spend time and resources trying to gain visibility and control over a complex global portfolio of cash movements and trade instruments. Banks should be able to offer deep and practical insights into working capital management, capital structure benchmarking, new opportunities

to drive efficiency, and even early-warning systems for when a counterparty's behaviour is starting to change. The trade bank of the future will be a value-added advisory partner to its clients, not just a utility provider of a service.

True digitalisation of trade

As data capture improves, numerous front-end solutions have arisen, including multi-bank ecosystems, and fintechs leveraging advances in blockchain and smart contracting. Shipping companies and logistics providers are increasingly looking to join this club, and even governments and regulators are sponsoring their own solutions, such as the bill of lading registry piloting in Singapore. As interoperability improves, these will hopefully move from being niche solutions for specific groups of counterparties into a flexible network capable of critical mass. Artificial intelligence adds a new dimension to this, with the possibility of data-driven credit scoring and instant financial decision-making, which is already being used in the e-commerce space.

Privacy and protectionism: the remaining challenges

We cannot forget data privacy. Regulators are increasingly firm in approach and the advent of laws such as the European GDPR place significant restrictions on use of data. Clearly there is a balance to be struck between the strict respect for data privacy and information security that is required of any company or bank, and the use of 'big data' in an appropriately anonymised way to generate deep insights into global trends. Likewise, the more we depend on electronic forms of data, the greater the associated security risks – and the stronger the fraud controls that will be needed.

And many countries still have laws on the books that force trade documents to be presented on paper; there is a lot of work being done by industry groups lobbying for change in this space but there is a long way to go. The e-BADD market in China shows what is possible when as traditional an instrument as a promissory note or bill of exchange is digitised by law; it transforms the trade market and creates the potential for trade finance that is more broadly accessible, more digital, and more sustainable. ■

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