

# THE DIGITAL JOURNEY IN TRADE FINANCE

Emerging technologies such as big data analytics, artificial intelligence and blockchain are disrupting industries like trade finance and reinventing the rules of engagement.

## TRADE FINANCE

Trade finance powers international trade and is vital for turning the wheels of global commerce. However, challenges still remain in mitigating risks and improving operational efficiency.

### KEY TRADE FINANCE STATISTICS\*

38%

Commercial Letter of Credit in the global trade finance product mix

70%

World's Letter of Credit<sup>1</sup> Import/Export messaging traffic to Asian markets

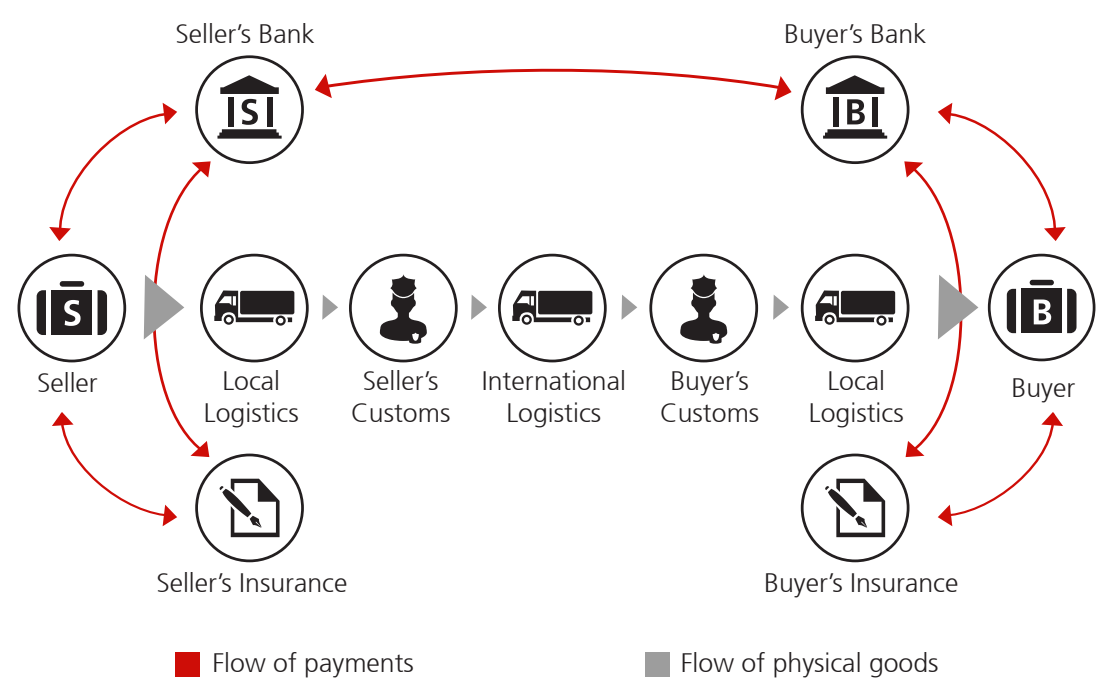
USD 350K

The average value of a Letter of Credit

\* ICC Global Survey on Trade Finance 2016

<sup>1</sup>Letter of Credit is still a commonly used instrument in trade finance today, and it is widely used by businesses in Asia, where the average value per transaction is USD350,000.

### TRADE FINANCE ECOSYSTEM



## TRADE FINANCING OPTIONS

The greatest challenge in trade finance is the significant operational cost and risk involved in the paper-intensive transactions. Efforts to digitalise highly manual solutions started decades ago, and there have been attempts by both industry players and banks to deliver new solutions to digitalise various parts of the trade finance value chain.

### CURRENT SOLUTIONS



#### PAPER-BASED FLOW

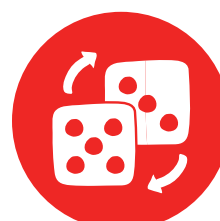
The commonly used trade financing instruments such as Letter of Credit or Documentary Collection requires high volume of paperwork and entail complex manual processes, resulting in higher cost, operational inefficiency and risks. This issue is exacerbated by increasingly stringent regulatory requirements that often requires human intervention.



#### ONLINE SOLUTIONS

Today, there are service providers that provide electronic channel services for data matching, electronic application and presentation. These Trade Finance solutions focus on data digitalisation and distribution to promote process automation, reduce cost, increase efficiency and better manage risk. While these solutions offer huge potential to streamline the processes, the solutions operate independently, and market adoption has not been widespread.

### CHALLENGES WITH THE CURRENT SOLUTIONS



#### RISK

Current manual processes are still susceptible to fraud and human error, increasing risk management costs for corporates and their banks.



#### COST

Inefficient processes and increasing overheads of regulatory compliance and screening raises cost across the industry.



#### SILOED

Current solutions are not interoperable, and they address only part of the trade finance journey.



#### EFFICIENCY

As numerous aspects of trade finance processes remain highly manual and market adoption of digital solutions is slow, businesses are unable to achieve optimal efficiency in trade finance.

## THE FUTURE IS DIGITAL

Progress towards digitalisation is gaining momentum with government-level support, as well as growing adoption of digital solutions to cater to shifting customer expectations. In collaboration with other financial service providers, clients and industry participants, DBS is leveraging key emerging technologies to digitalise trade finance.

### TECHNOLOGIES THAT WILL POWER THE DIGITAL REVOLUTION OF TRADE FINANCE



#### BIG DATA ANALYTICS

Big data analytics can tap into the wealth of data sitting in multiple databases, even across different geographies, to identify data trends and flag anomalies. This enables enhanced risk management, strengthened regulatory compliance and improved business intelligence that can be accessed in real-time or monitored on a timely basis to develop targeted and actionable insights.



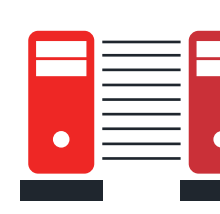
#### ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) can enrich big data analytics to provide predictive insights, augmented by machine learning techniques and cognitive technologies, including natural language processing. AI can decipher unstructured data, recognise human decision making patterns and improve the accuracy of their reasoned conclusions to formulate strategies, drive deeper insights and automate processes.



#### BLOCKCHAIN

Blockchain, or distributed ledger technology, is immutable, decentralised and transparent, allowing the dematerialisation of documents with improved risk management. With improvements in cryptocurrencies, blockchain holds the potential of digitalising the end-to-end trade process.



#### INTEGRATED PLATFORMS

Integrated platforms serve as a trade ecosystem, seamlessly connecting stakeholders in the entire trade supply chain to plug-in, interact and exchange data seamlessly, without the need for manual intervention. They also provide a single point of entry for customers to access different banking products and services through an open API architecture.

## RE-IMAGINE TRADE FINANCE

At DBS, we harness digital innovation to re-imagine the role of banks and deliver cutting-edge solutions in trade finance. Below are some of our recent initiatives that are centred around increasing efficiency, enhancing risk management and reducing costs for our customers:



#### FRAUD PREVENTION

Our Trade Alerts programme mines through the transaction data and trends of customers' portfolios and examines external global maritime information to identify potential fraudulent transactions. Big data is thus transformed into business intelligence and actionable insights for proactive risk management.



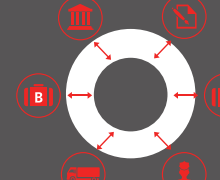
#### DESIGN FOR NO OPS

We have embarked on Robotic Process Automation (RPA) to automate manual and repetitive operational tasks. RPA will enable interpretation of data inputs, interaction with other system applications and completion of tasks based on defined rules without human intervention. This results in improved efficiency, resulting in shorter processing turnaround time for our clients.



#### ELIMINATING DUPLICATE FINANCING

Our Trade Safe concept utilises distributed ledger technology to prevent duplicate invoice financing and verify the veracity of underlying trade. Through Smart Contracts, the ownership and status of an asset is recorded with an irrevocable audit trail and documentation is transmitted digitally, mitigating the existing high cost, error-prone and inefficient processes.



#### OPEN API PLATFORM

The National Trade Platform in Singapore is a new integrated trade and logistics IT ecosystem connecting businesses, services providers, and the government to enable sharing of electronic trade data between stakeholders. DBS is actively engaged in shaping the development of this integrated platform that will truly digitalise the trade flow from end-to-end.