



BRIDGING TRADE FINANCE GAPS THROUGH TECHNOLOGY

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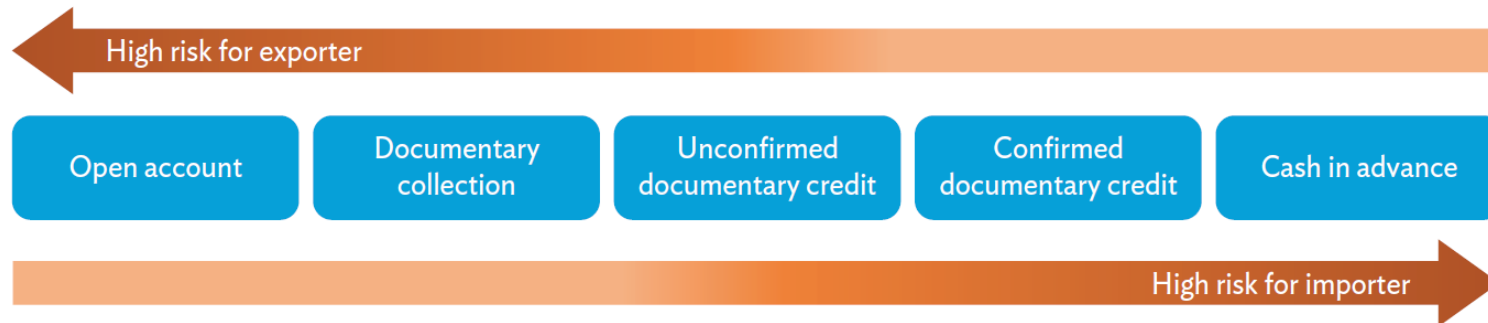
Economic Research and Regional Cooperation Department
Asian Development Bank

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Trade finance provides working capital and a means to reduce payment risk in trading across borders

Degrees of risk by transaction type



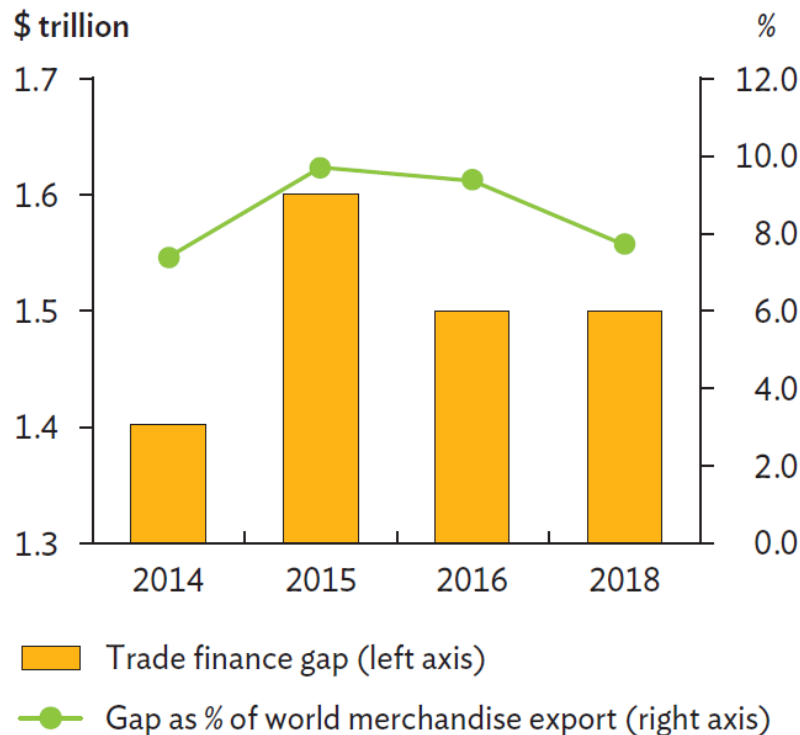
Source: ADB, based on Malaket (2014)

Market structure, 2017

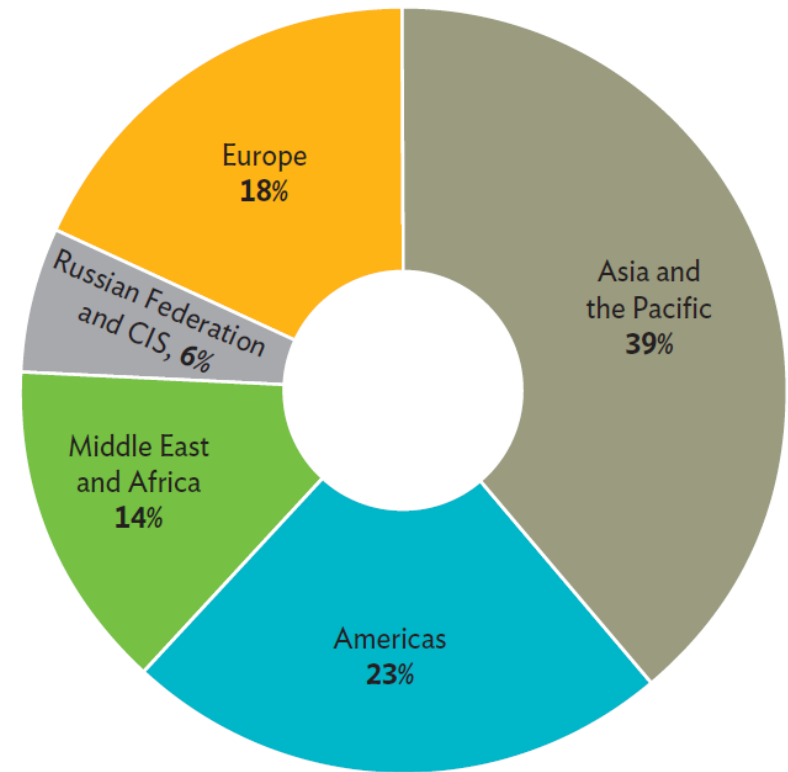
Inter-firm Trade Credit (60%)	Bank-Intermediated Trade Finance (40%)		
Open account 40% \$7.1 trillion	Letters of credit 20% \$3.6 trillion	Supply chain finance 6% \$1.1 trillion	ECA-supported 13% \$2.3 trillion
Cash in advance 20% \$3.5 trillion	Documentary collections 8% \$1.4 trillion	Guarantees 5% \$1.0 trillion	MDB-financed 0.12% \$20.9 billion
Global Merchandise Export, 2017 \$17.7 trillion			

Unmet demand for trade finance remains huge

Global Trade Finance Gap, 2014–2018



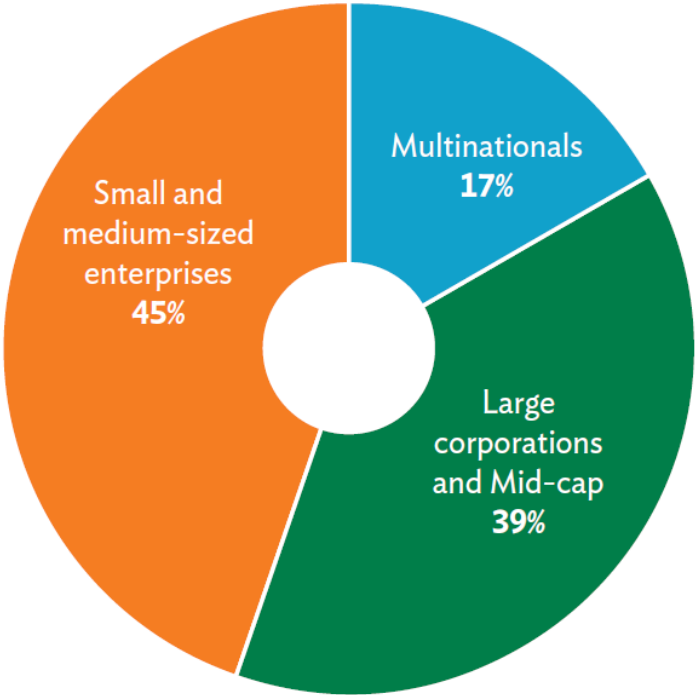
Rejection by Region, 2016



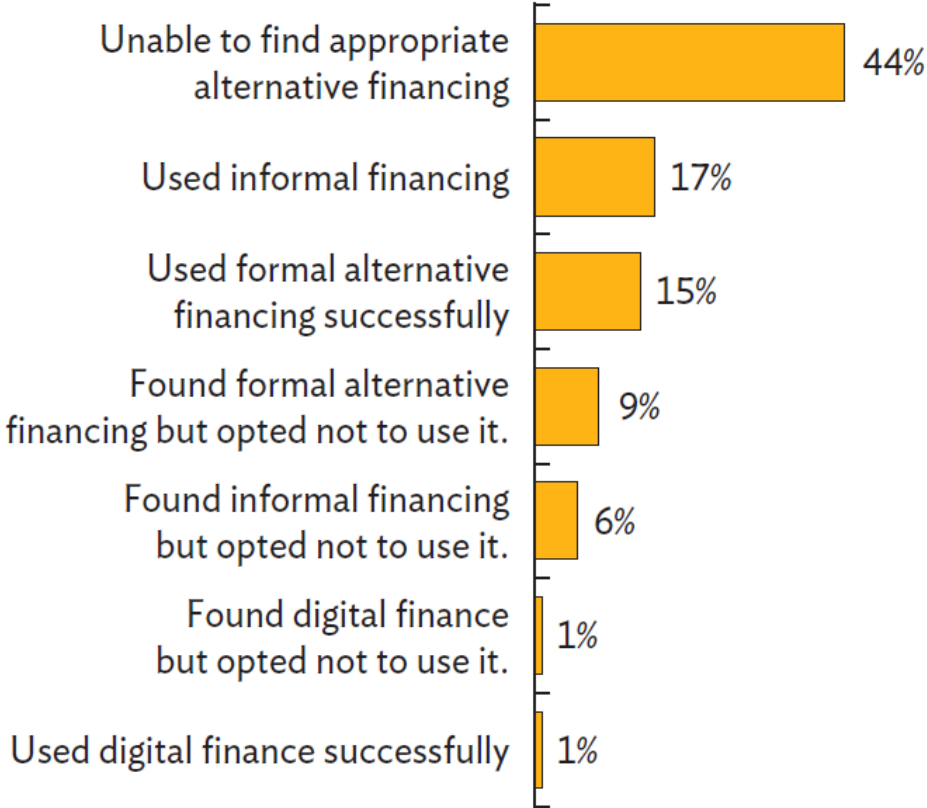
Source: ADB Trade Finance Gaps, Growth, and Jobs Survey

SMEs have the highest rejection rates for trade finance applications

Trade finance rejections by firm size, 2018



Possibility of finding alternative sources of finance



MDBs bolster international trade through trade finance programs

Trade finance programs in international organizations, 2017

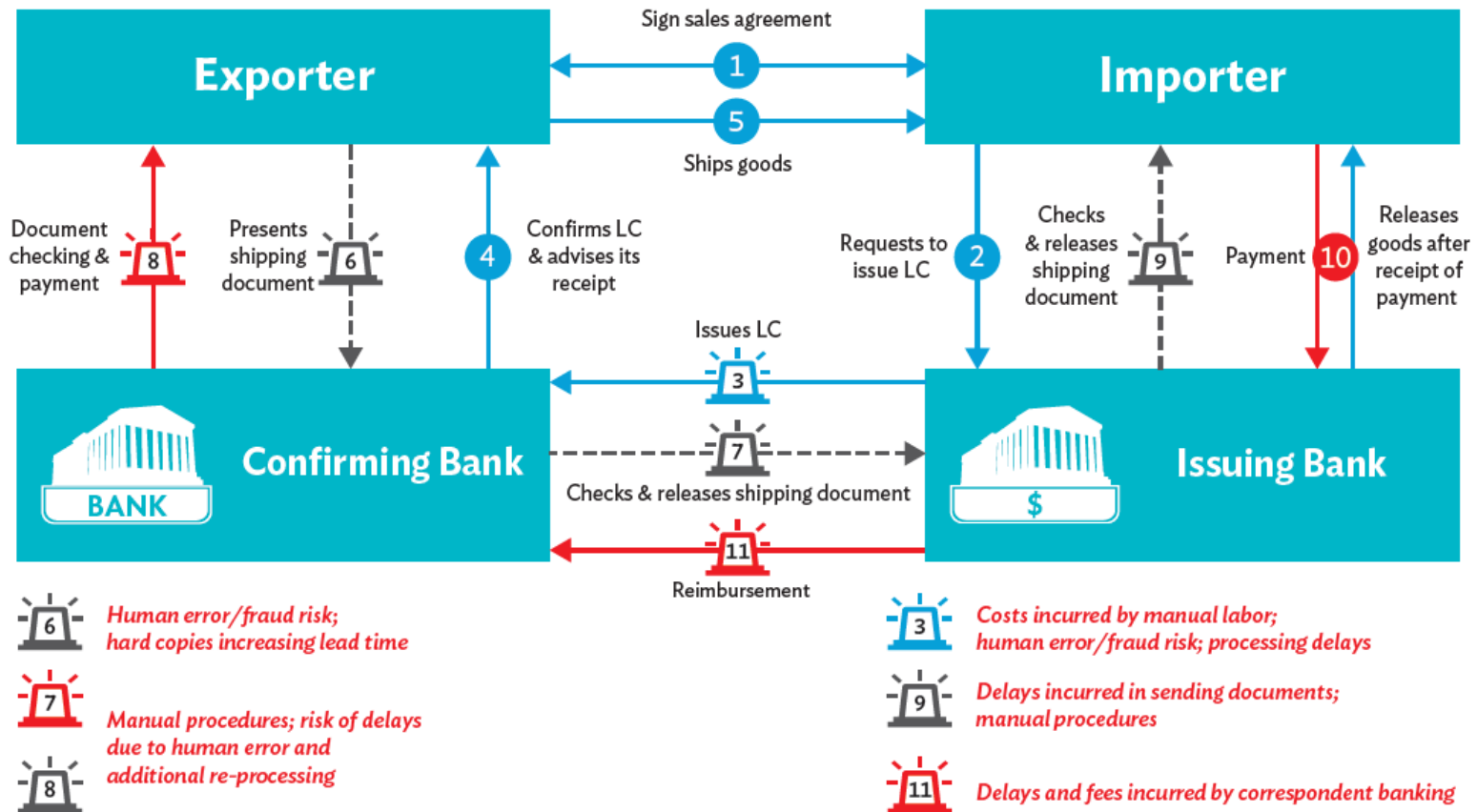
ADB	AfDB	EBRD	IDB	IFC	ITFC
Program Title					
Trade Finance Program (TFP)	Trade Finance Programme (TFP)	Trade Facilitation Programme	Trade Finance Facilitation Program (TFFP)	Global Trade Finance Program (GTFP)	ITFC Trade Finance Program (TFP)
Number of countries of operation					
22	49	26	21	85	51
Program commencement					
2004	2013	1999	2005	2005	2008
Value of transactions since commencement					
\$36.3 billion (2009–2018)	\$6.65 billion	\$18.5 billion	\$5.9 billion supporting \$9.1 billion underlying transactions	\$64 billion	\$40.2 billion
% of SMEs in portfolio					
81%	58%	78%	84%	n.a.	15%

ADB = Asian Development Bank, AfDB = African Development Bank, EBRD = European Bank for Reconstruction and Development, IDB = Inter-American Development Bank, IFC = International Finance Corporation, ITFC = International Islamic Trade Finance Corporation
Source: ICC (2018)

Challenge 1

Process inefficiencies arise from *paper-based* documentary transactions

Risks in Letter of Credit transactions

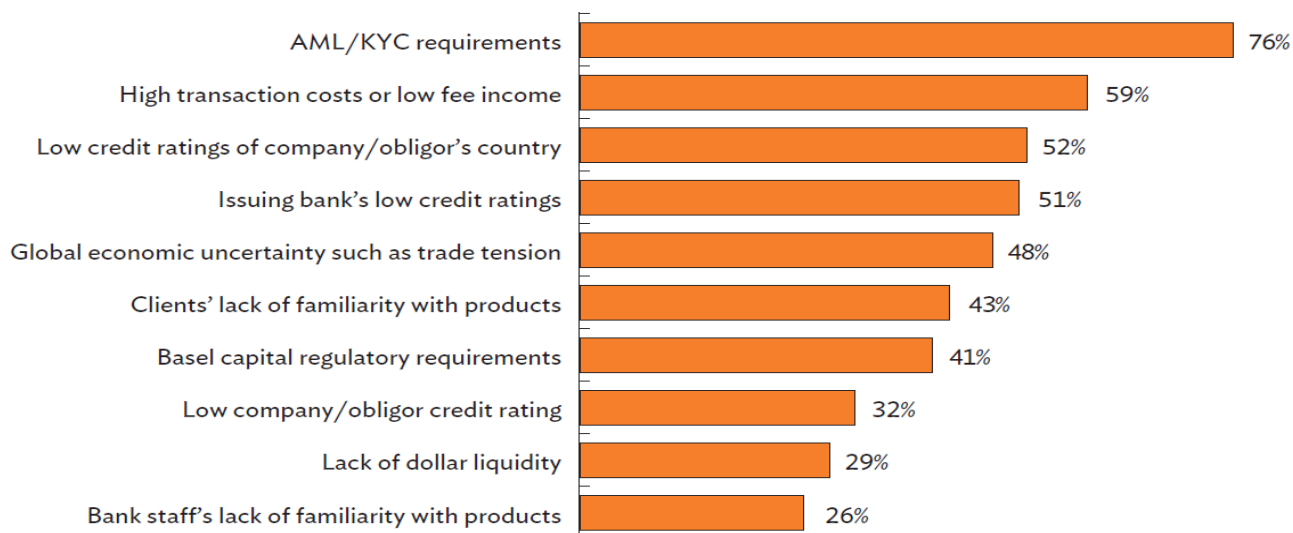


Source: ADB, based on ICC (2014); World Economic Forum and Bain & Company (2018b).

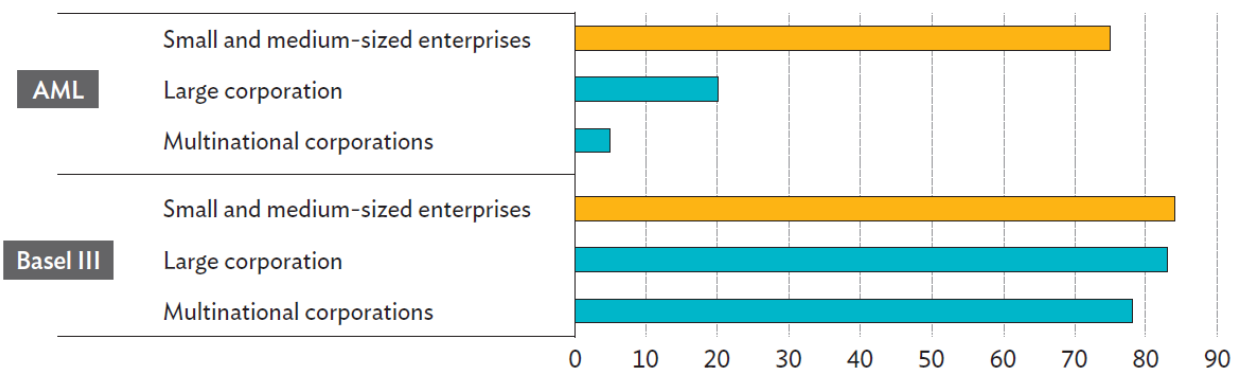
Challenge 2

Regulatory compliance requirements increase the cost of supplying trade finance

Obstacles and Concerns to Trade Finance Growth (% of respondents agreeing on barriers to trade finance)



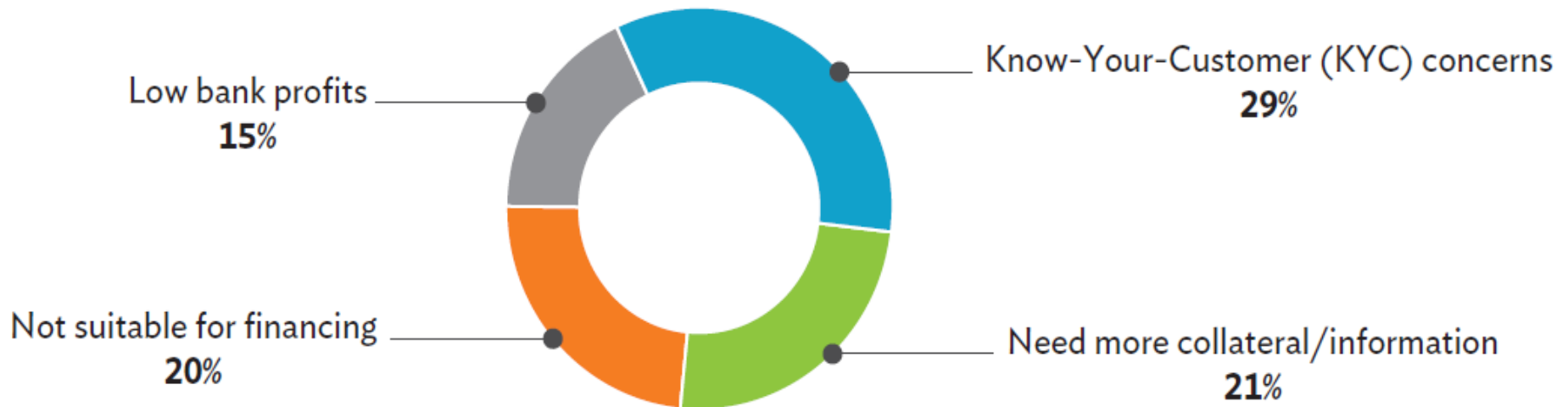
Expected Impact of Regulatory Requirements (%)



Challenge 3

Requirements to reduce *information asymmetry* adds more challenges to SMEs access to trade financing

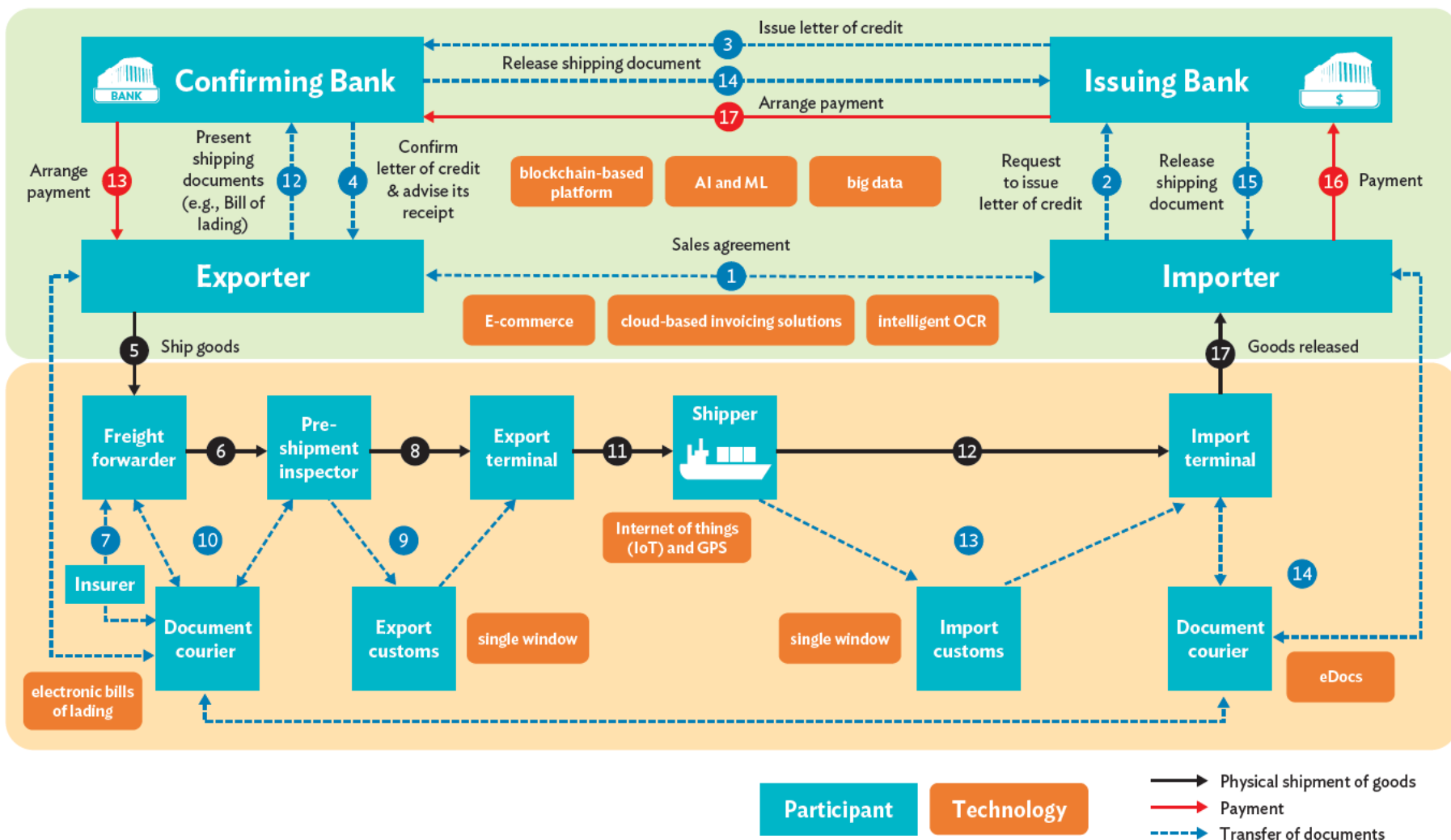
Reasons Banks Reject Trade Finance Applications (% of rejections)



Source: ADB Trade Finance Gaps, Growth, and Jobs Survey 2017

Digitization and automation holds great promise for more inclusive international trade

Trade Flows and Technologies



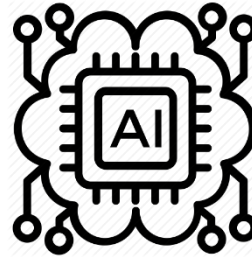
AI = artificial intelligence, ML = machine learning, OCR = optical character recognition.

Sources: ADB-ESCAP Asia-Pacific Trade Facilitation Report 2019

Emerging Technologies Facilitating Trade



Internet-of-Things:
Asset tracking in supply chain management, e-commerce



Artificial Intelligence:
Detects and predicts patterns more accurately; used in customs audits, classification of products



Biometrics: verify identities, control access



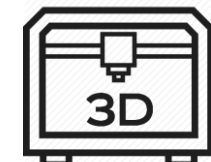
Blockchain:
transactions verified and approved by consensus, prevents fraud



Virtual, augmented, mixed reality: used to project visual assistance in the physical world, e.g. physical inspection, visualize big data



Drones: used by customs for surveillance and monitoring



3D printing: 3D solid products printed domestically from a digital file

Role of technology in addressing challenges in trade finance

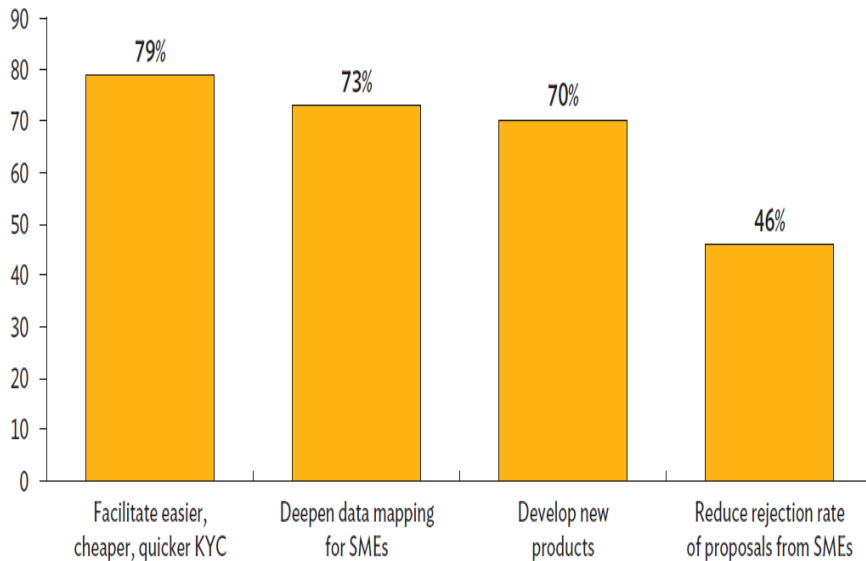
Potential Benefits of Available Technology

Technology	Addressing Challenges of Trade Finance				
	Challenge 1: Process inefficiency		Challenge 2: Regulatory requirements		Challenge 3: Information asymmetry
	Decreased human errors	Improved speed of transactions	Improved flexibility to changes in market and/or regulatory requirements	Improved KYC and AML efforts	Improved credit scoring tools
Cloud-based invoicing solutions	✓	✓			✓
Optical character recognition	✓	✓		✓	
Electronic bills of lading	✓	✓			
Distributed ledger technology such as blockchain-based platforms	✓		✓	✓	✓
Artificial intelligence and big data	✓	✓	✓	✓	✓
Single window	✓	✓	✓		
Internet-of-things and GPS	✓	✓			
Application programming interfaces	✓	✓	✓		

AML = anti-money laundering, GPS = global positioning system, KYC = know-your-client.
Source: ADB compilation.

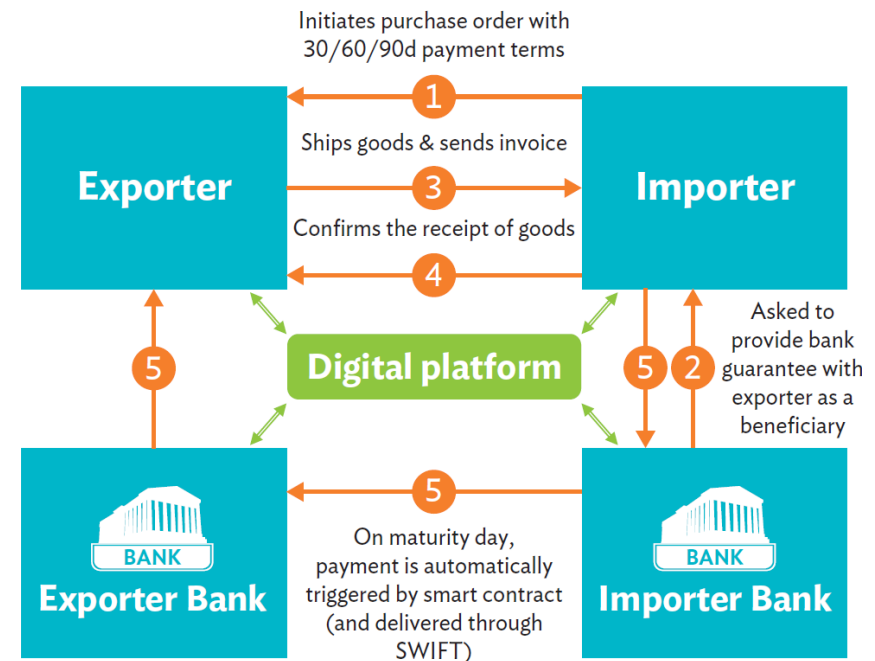
Digital technology can enhance efficiency in trade finance transactions

Technology's Effects on Banks' Ability to Conduct More Transactions



KYC = know-your-customer, SMEs = small and medium-sized enterprises
Source: ADB (2019a).

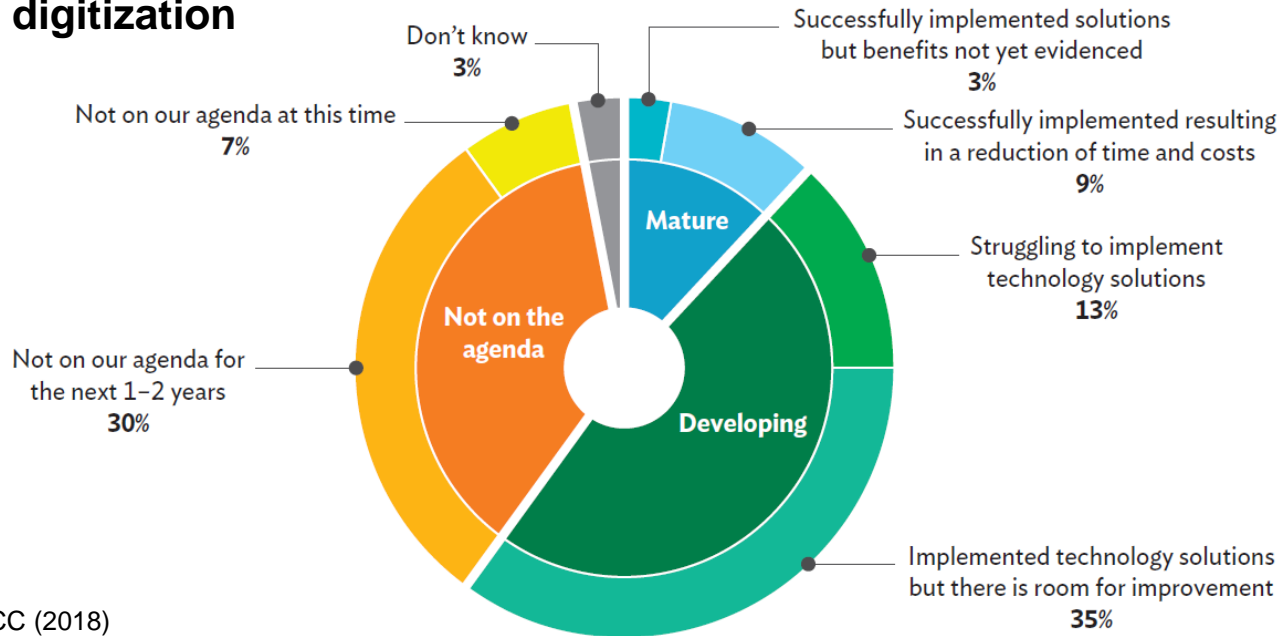
Open Account under a digital platform



Source: ADB, based on Simmons and Simmons (2015); Morris (2018); we.trade website n.d.

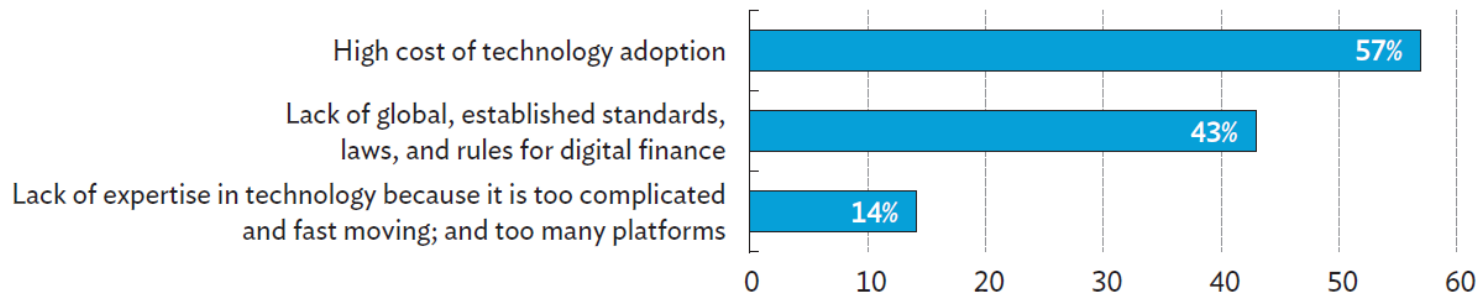
However, progress in digitalization is far from complete, and cost of technology adoption is high

State of digitization



Source: ICC (2018)

Reasons to Not Use Technology (% of responding banks)



How to strengthen support for SME trade finance

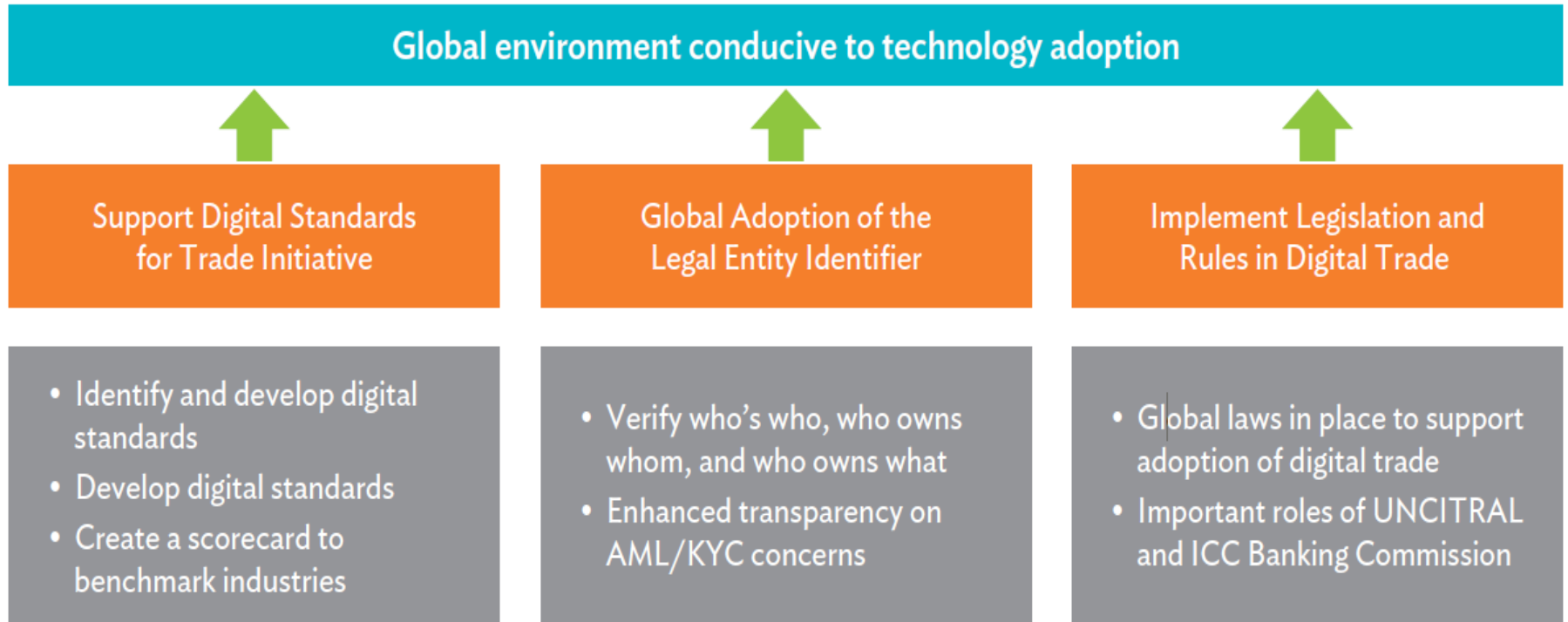
National ECAs can help improve SMEs' access to trade finance by identifying challenges

Government *collaboration* with the private sector as well as other governments is critical

Regional initiatives can stimulate investments and spreading innovative technologies in developing economies

How to promote technology adoption

Three Initiatives to Build an Environment Conducive to Technology Adoption

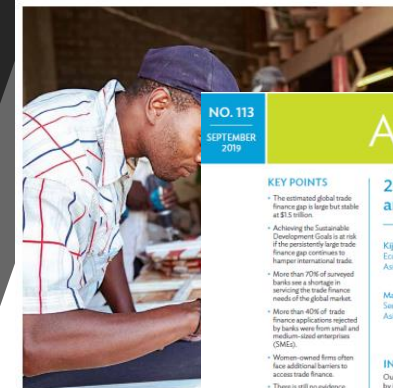


AML = anti-money laundering, KYC = know-your-customer, UNCITRAL = United Nations Commission on International Trade Law, ICC = International Chamber of Commerce.

Source: ADB compilation.

How to reduce knowledge gap

- Raise awareness of various instruments and sources of trade financing among SMEs
- Improve monitoring of trade finance provision to identify and respond to gaps
- International communities can strengthen an open dialogue with regulators



KEY POINTS

- The estimated global trade finance gap is large but stable at \$1.5 trillion.
- Achieving the Sustainable Development Goals is at risk if the persistently large trade finance gap hampers international trade.
- More than 70% of surveyed banks saw a shortage in servicing the trade finance needs of the global market.
- More than 40% of trade finance applications rejected by banks were from small and medium-sized enterprises (SMEs).
- Women-owned firms often face additional barriers to access trade finance.
- There is still no evidence showing that technology reduces the trade finance gap, but 86% of banks surveyed say they are preparing to service more SMEs using technology.
- The lack of global digital standards and lives as well as high cost discourage banks and firms from adopting technology.
- Anti-money-laundering measures are an impediment to closing gaps.

The ADB 2019 Trade Finance Gaps, Growth, and Jobs Survey is a joint product of the Trade Facilitation Operations Department and the Regional Cooperation and Integration Division.

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INTRODUCTION

Our ability to achieve the Sustainable Development Goals (SDGs) can be compromised by insufficient financing available for trade. As trade's ability to drive inclusive growth and poverty reduction is widely recognized, addressing the trade finance gap would help achieve many of the SDGs, including those related to gender equality and economic empowerment of women (SDG 5) and economic growth and jobs (SDG 8) (Figure 1).

Nevertheless, this survey, our sixth and the world's leading survey of international trade finance needs, identifies large market gaps for trade finance that make it impossible to exploit the full potential of trade to deliver growth, jobs, and poverty reduction.

The dynamics of international trade are becoming ever more complicated. On the one hand, trade tensions and the imposition of trade barriers, along with softening global economic growth expected in 2019, will adversely impact global trade levels. On the other, emerging technologies such as artificial intelligence (AI) and blockchain, as well as pending new trade arrangements, support future trade growth.

Given the uncertain world economic outlook, it is critical that those and other breakthrough technologies be exploited to create more efficient, stable, and sustainable trade finance channels that will spur global growth and development.

The United Nations Adbi Action Agenda of the Third International Conference on Financing for Development adopted in 2015 recognizes the importance of trade in development and financing trade. It acknowledges that "lack of access to trade finance can limit a country's trading potential, and result in missed opportunities to use trade as an engine for development."



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