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A CONCEPTUAL MODEL FOR ENHANCING SME ACCESS TO TRADE FINANCE IN A DIGITALLY FRAGMENTED GLOBAL ECONOMY

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ABSTRACT

Despite SMEs accounting for 90% of global businesses and over half of employment worldwide, they face a $2.5 trillion trade finance gap exacerbated by digital fragmentation, information asymmetry, and regulatory complexity in cross-border transactions. This paper proposes a conceptual model integrating digital trade platforms, blockchain authentication, AI-driven alternative data analytics, fintech-bank collaboration, and embedded regulatory compliance to enhance SME access to trade finance. Through an integrative literature review of academic research, policy reports (WTO, BIS, ICC), and fintech case studies, the study identifies key barriers—including paper-based inefficiencies, high rejection rates, and compliance costs—and synthesizes digital solutions grounded in information asymmetry theory, transaction cost economics, and platform theory. The proposed model demonstrates how blockchain-enabled smart contracts can automate document verification, while alternative data (e-commerce, mobile money) improves credit scoring for SMEs lacking formal financial histories. Implementation considerations highlight the need for regulatory harmonization (UNCITRAL MLETR adoption), public-private infrastructure partnerships, and SME digital literacy programs to address fragmentation risks. The framework offers policymakers and financial institutions a scalable blueprint to reduce financing gaps, though empirical validation through regional pilots is recommended to test interoperability and inclusion outcomes.

Keywords: SME trade finance, digital fragmentation, blockchain authentication, alternative data scoring, fintech-bank collaboration, compliance automation, information asymmetry.

1. INTRODUCTION

Small and medium-sized enterprises (SMEs) represent the economic backbone of both developed and emerging economies, accounting for around 90 percent of businesses globally and contributing more than half of employment across diverse contexts, while also delivering up to 40 percent of national income in emerging markets. Despite their critical role in job creation and economic development, access to formal financial support remains a major barrier for SME growth. In developing economies alone, approximately 65 million firms—equivalent to 40 percent of formal micro, small, and medium enterprises—face annual unmet financing needs totaling about US $5.2 trillion, a demand 1.4 times the current level of global MSME lending (World Bank Group, n.d.). While trade finance is a key facilitator of international trade—supporting over 80 percent of global commerce by mitigating risk and improving liquidity through instruments such as letters of credit—the burden of compliance, including anti-money laundering and know-your-customer checks, renders this type of financing especially expensive and cumbersome for smaller enterprises (Investopedia, 2025).

The persistence of a global trade finance gap—estimated to have exceeded US $2 trillion in 2022, up from earlier levels—largely reflects unmet demand, with SMEs disproportionately affected due to higher rejection rates for trade finance applications (IMF, 2023). This shortfall is exacerbated by entrenched issues such as information asymmetry, whereby lenders lack sufficient reliable data to assess SME creditworthiness, resulting in inflated risk perceptions. Meanwhile, digital fragmentation—defined by uneven technological adoption, divergent regulatory frameworks, and legacy systems—impedes the modernization of trade finance processes that could make them more inclusive, cost-effective, and efficient (IMF, 2023). The International Chamber of Commerce has also highlighted how antiquated regulation and overly onerous compliance rules undermine efforts to digitize export documentation, as exemplified in the UK where approximately £22 billion in trade finance remains inaccessible to SMEs due to bureaucratic capital requirements (Financial Times, 2025).

In response to these entrenched challenges, this paper seeks to propose a conceptual model that strategically integrates digital trade platforms, blockchain-based infrastructure, and alternative data sources to streamline SME access to trade finance. The envisioned model aims to enhance transparency, reduce information asymmetry, and lower transaction costs, while improving interoperability across fragmented systems. By bridging the skills and infrastructure gap, the framework would enable SMEs to engage more effectively with both traditional financial institutions and fintech innovators, thereby democratizing access to cross-border financing.

Fundamental to this study are three overarching research questions. First, it asks how digitalization can address persistent barriers to SME trade finance, including inefficiencies, opacity, and high costs inherent in paper-based, manual systems. Second, it examines the roles that blockchain platforms, fintech innovations, and alternative data analytics can play in mitigating information asymmetry and risk—through mechanisms such as immutable ledgers, smart contracts, and enriched credit scoring tools. Third, the model explores how traditional banks and fintech companies might collaborate effectively, leveraging regulatory compliance, trust, and infrastructure from incumbent institutions alongside the agility, data capabilities, and user-friendly interfaces of fintech actors.

The scope of this conceptual paper spans global relevance, with particular emphasis on digitally under-connected regions—where the dual challenges of infrastructure deficits and fragmented regulatory environments are most intense, and where SMEs suffer the greatest exclusion from trade finance channels (World Bank Group, n.d.; IMF, 2023). By offering a theoretically grounded yet practically oriented framework, this study aims to inform policymakers, financial institutions, fintech developers, and development agencies. Ultimately, the model is intended as a foundation for future pilot studies, implementation strategies, and conceptual validation in order to contribute toward closing the SME trade finance gap and promoting inclusive, digitally enabled economic growth.

2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

2.1 SMEs and Trade Finance – Role in Economic Growth, Trade Participation, and Barriers

Small and medium-sized enterprises (SMEs) constitute roughly 90 percent of global businesses and contribute significantly to employment and GDP worldwide, particularly in emerging markets (WTO, 2024). These firms are critical engines of innovation, flexibility, and inclusive economic development, yet they face persistent obstacles in participating in international trade. Trade finance, which supports over 80 percent of global trade volume through instruments like letters of credit and guarantees, is essential for SME involvement; however, SMEs often face prohibitive costs and operational burdens associated with compliance requirements such as anti-money laundering (AML) and know-your-customer (KYC) protocols (Investopedia, 2025). The annual trade finance gap, estimated at approximately US $2.5 trillion as of 2022, disproportionately affects SMEs, whose applications are rejected at nearly double the rate of larger firms (ADB, 2023). Moreover, SMEs frequently encounter higher financing costs and collateral demands compared to larger corporations, further exacerbating their competitive disadvantage in international markets (WTO, 2024; ADB, 2023). Compounding these challenges are capability and infrastructure gaps — including limited digital literacy, poor access to export-related information, and weak trade networks — which collectively restrict SMEs' ability to engage in cross-border trade (WTO, 2024). Taken together, the literature portrays a complex environment where SME growth and trade potential remain stifled by financial exclusion, operational inefficiencies, and structural barriers.

2.2 Digital Transformation in Trade Finance – Platforms, Automation, Smart Contracts

Digitalization offers a powerful lever for streamlining trade finance processes. Industry and multilateral initiatives — such as the ICC's eUCP 2.1 and Uniform Rules for Digital Trade Transactions (URDTT) — have enabled electronic presentation of documents, significantly reducing reliance on paper-based workflows (ICC, 2023). The ICC Digital Standards

Initiative (DSI) has advanced harmonization by defining Key Trade Documents and Data Elements (KTDDE), aligning critical metadata across 36 commonly used documents to facilitate interoperability among digital platforms (ICC, 2024). Jurisdictions such as the United Kingdom have enacted legislative reforms — for instance, the Electronic Trade Documents Act (2023) — that grant legal recognition to digital trade documents, paving the way for automation of compliance and contractual obligations (UK Legislation, 2023). Simultaneously, payment system innovations, including digitized cross-border tracking and automatable compliance checks, are reducing reconciliation lags and unlocking working capital for SMEs (BIS, 2024). In aggregate, these developments underscore that digital platforms, anchored by standardized data models and enabling legal frameworks, can expedite documentation workflows, enhance transparency, and lower transaction costs — all of which are particularly beneficial to SMEs.

2.3 Blockchain Applications – Transparency, Traceability, Smart Contracts, Fraud Reduction

Distributed ledger technology (DLT) holds promise as a backbone for trust and transparency in trade finance. The World Economic Forum and other analyses highlight blockchain's capacity for immutable record-keeping and shared visibility, which enhance traceability and reduce fraud risk (WEF, 2024). Notably, projects like the Bank for International Settlements' Project Mandala have embedded jurisdiction-specific compliance logic into transaction platforms ("compliance-by-design"), automating sanctions screening, document verification, and currency control precedents (BIS, 2024). The ICC's applied research reveals that smart contracts enable conditional release of funds based on verified digital documentation, though full benefits depend on interoperability standards and supportive legal frameworks (ICC Academy, 2023). Thus, blockchain can play a critical role in reducing information asymmetry and operational risk by codifying terms, creating shared audit trails, and ensuring enforcement in a highly distributed ecosystem.

2.4 Alternative Data for Credit Assessment – E-Commerce Records, Logistics, Payment Histories

Alternative data is reshaping credit assessment, especially for SMEs with limited formal financial records. The World Bank and G20's Global Partnership for Financial Inclusion (GPFI) have documented how mobile money logs, e-commerce transactions, utility payments, logistics scans, and tax records can augment traditional credit files and substantially enhance predictiveness (World Bank & GPFI, 2025). The GSMA reports that in 2023, approximately 1.75 billion mobile money accounts processed US $1.4 trillion in transactions, generating rich data assets for powering working-capital and invoice-financing products for micro and small merchants (GSMA, 2024). Other case studies demonstrate how machine learning models integrating behavioral, transactional, and bureau data expedite lending decisions while preserving accuracy (GSMA, 2024). Additionally, the World Bank advocates for secure, API-driven access to government datasets — such as land registries, business registries, and tax filings — to expand lender access to credit-relevant information (World Bank, 2024). Although data rights, algorithmic fairness, and explainability remain critical governance considerations, the literatures converge on the potential of alternative data to narrow information gaps and reduce screening costs for underserved SMEs.

2.5 Role of Fintech and Traditional Banks – Complementary Strengths, Partnerships

Banks and fintech firms bring complementary capacities to the SME finance ecosystem. Banks provide established compliance frameworks, deposit and credit infrastructure, and scale; fintechs offer agility, user-centric design, and access to rich data sources. The OECD underscores how bank-fintech partnerships — through white-label platforms, embedded finance, and shared credit-scoring mechanisms — can extend coverage to SMEs while preserving regulatory safeguards (OECD, 2024). Global policy bodies, including the GPFI, advocate for embedded finance and data-sharing as pathways to financial inclusion, provided they operate within appropriate supervisory frameworks (GPFI, 2025). In parts of Africa and other developing markets, alliances between banks and fintechs have enabled solutions like merchant cash advances and digital invoice financing, helping small suppliers and merchants access working capital efficiently (EIB, 2024). Overall, the consensus is that blends of capital, regulation, and technology can resolve bottlenecks in SME trade finance more effectively than isolated interventions.

2.6 Digital Fragmentation Challenges – Interoperability, Regulatory Mismatch, Uneven Adoption

Despite rapid innovation, the digital trade-finance ecosystem remains fragmented. The ICC DSI acknowledges that although digital document standards (KTDDE) offer a unifying data model, adoption is uneven and platform interoperability remains limited (ICC, 2024). On the legal front, adoption of the UNCITRAL Model Law on Electronic Transferable Records (MLETR) is expanding — for example, the UK passed the law in 2023, while France and Timor-Leste followed in 2024 — but its global coverage is still incomplete, rendering cross-border digital trade

uncertain (UNCITRAL, 2025). Even with enabling legislation, policy and platform fragmentation often leave firms reliant on hybrid systems, constraining efficiencies and elevating costs (UK Government, 2023). International appeals from organizations such as UN/CEFACT and the ICC emphasize the importance of coordinated adoption of interoperable standards and comprehensive paperless trade policies to avoid the fragmentation and maximize network benefits (UNECE, 2024). In the absence of holistic coordination across technical, legal, and regulatory layers, the transformative potential of digital trade finance for SMEs is diluted.

2.7 Theoretical Foundations – Information Asymmetry Theory, Transaction Cost Economics, Risk Mitigation, Platform Theory

The conceptual underpinnings of this study draw on several fundamental theories. Information asymmetry theory, exemplified by Akerlof's "lemons" framework, explains how lenders ration credit when SMEs lack verifiable credit information (Akerlof, 1970); digital footprints and shared ledgers help mitigate this by improving both screening and monitoring. Transaction Cost Economics (Coase, 1937; Williamson, 1985) argues that digitization — through legal recognition of e-documents and smart contract efficiency — reduces search, contracting, and enforcement costs, particularly in multi-party trade ecosystems. Risk mitigation theory highlights how compliance-by-design and automation reduce operational and regulatory risks in cross-border transactions (BIS, 2024). Finally, platform theory posits that multi-sided digital platforms generate network effects — as more participants (SMEs, financiers, logistics providers) share standardized and interoperable data, the platform's value grows, increasing access and reducing costs for SMEs at the periphery (ICC, 2024). Together, these theories justify the integration of digital infrastructure, blockchain, alternative data, and institutional collaboration in crafting a more inclusive and efficient trade finance framework.

3. METHODOLOGY

The methodology for this conceptual paper adopts a qualitative approach centered on developing a theoretical model through an integrative literature review, thematic synthesis, and analysis of emerging technology trends relevant to SME trade finance. Data sources comprise recent peer-reviewed academic studies on trade finance, fintech, blockchain, and SME financing (e.g., WTO, 2024; OECD, 2024), complemented by authoritative industry reports from institutions such as the World Bank, International Chamber of Commerce, and Asian Development Bank, as well as fintech sector research capturing current innovations and adoption patterns (World Bank, 2024; ICC, 2024; ADB, 2023). Regulatory and policy frameworks — including the UNCITRAL Model Law on Electronic Transferable Records, ICC Uniform Rules for Digital Trade Transactions, and Basel Committee guidelines — are also incorporated to ground the framework in enforceable compliance contexts (UNCITRAL, 2025; ICC, 2023). The analytical process proceeds in four stages: first, mapping SME pain points in trade finance by synthesizing global and regional evidence of credit access constraints; second, examining the capabilities of digital platforms, blockchain applications, and alternative data analytics in addressing these barriers; third, mapping the roles and interactions of key actors — SMEs, banks, fintech providers, and regulators — in enabling or constraining digital trade finance solutions; and fourth, integrating these insights into a conceptual model that demonstrates value creation, risk mitigation, and transaction cost reduction pathways. While not empirical, the proposed model is validated against theoretical foundations — including information asymmetry theory, transaction cost economics, and platform theory — and reinforced with contemporary case examples to ensure plausibility, policy relevance, and practical applicability in digitally fragmented global markets (BIS, 2024; WEF, 2024).

4. PROPOSED CONCEPTUAL MODEL

The proposed conceptual model integrates five interdependent components that collectively enhance SME access to trade finance in a digitally fragmented global economy. It combines digital trade platforms, blockchain-based authentication, AI-driven alternative data analytics, structured fintech–bank collaboration, and embedded regulatory compliance to create a seamless, low-friction financing environment. The model is grounded in established theoretical principles, including information asymmetry theory, transaction cost economics, and platform theory, while drawing on recent innovations and policy trends in global trade finance (ICC, 2024; BIS, 2024; WTO, 2024).

4.1 Digital Trade Platforms – Centralized Hubs for SME–Financier–Regulator Interactions

At the core of the framework is a multi-sided digital trade platform serving as a central hub where SMEs, financial institutions, fintech providers, and regulators can interact in real time. This platform consolidates trade documentation, credit applications, compliance submissions, and logistics tracking into a single interoperable environment. The ICC Digital Standards Initiative (DSI) and other global interoperability projects have shown that such hubs can dramatically reduce document handling time and enhance transparency across stakeholders (ICC, 2024). By functioning as a marketplace and compliance gateway, the platform reduces coordination failures and

facilitates greater SME participation in cross-border trade finance.

4.2 Blockchain Layer – Distributed Ledger for Authentication and Smart Contracts

Beneath the digital platform layer lies a blockchain infrastructure that provides immutable authentication of trade documents, transaction histories, and contractual terms. This layer supports smart contracts that automate conditional fund releases when pre-defined digital triggers — such as verified shipment receipts — are met. Recent experiments, such as the BIS Project Mandala, demonstrate how blockchain-enabled compliance-by-design can integrate regulatory rules directly into transaction logic, reducing manual checks and fraud risks (BIS, 2024; WEF, 2024). The blockchain layer therefore addresses trust deficits between counterparties and reduces disputes, delays, and operational overheads.

4.3 Alternative Data Analytics Layer – AI/ML-Driven Credit Scoring Using Non-Traditional Sources

The third component employs artificial intelligence (AI) and machine learning (ML) to analyze alternative data streams — including e-commerce transaction histories, mobile money flows, logistics records, tax filings, and utility payment patterns — to generate robust SME credit profiles. This approach enables lenders to assess SMEs that lack conventional credit histories, thereby reducing exclusion driven by opaque borrower profiles (World Bank & GPFI, 2025; GSMA, 2024). By embedding predictive analytics into the lending workflow, the model mitigates information asymmetry and expands access for SMEs in underbanked or informally documented markets.

4.4 Fintech–Bank Collaboration Mechanism – Co-Lending and API-Driven Services

A structured collaboration mechanism between fintech firms and traditional banks forms the fourth component. Fintechs contribute agile onboarding processes, user-friendly interfaces, and alternative data expertise, while banks provide capital reserves, risk management infrastructure, and compliance oversight. OECD (2024) notes that co-lending arrangements and API-based service integration have proven effective in extending SME financing while maintaining regulatory safeguards. This cooperative model leverages the comparative advantages of both actors, enabling scalability and resilience in trade finance delivery.

4.5 Regulatory/Compliance Integration – Digital KYC, AML, and Cross-Border Compliance

The final component embeds digital regulatory compliance within the financing process. Digital KYC and AML protocols, aligned with FATF guidelines and Basel recommendations, enable faster onboarding without sacrificing due diligence (BIS, 2024). Cross-border transactions are streamlined through alignment with the UNCITRAL Model Law on Electronic Transferable Records (UNCITRAL, 2025) and ICC's URDTT rules, ensuring legal recognition of digital documents across jurisdictions. By automating compliance workflows and integrating them into platform and blockchain layers, the model reduces transaction costs and accelerates trade finance approvals.

4.6 Operational Flow

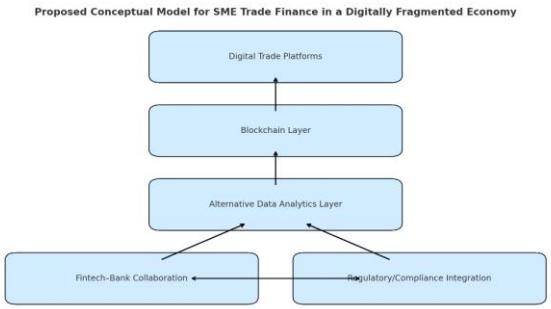
The model's operational flow begins with SMEs submitting trade finance applications via the digital trade platform, which instantly integrates compliance data and business transaction records from alternative data sources. Blockchain smart contracts validate trade documents and trigger automated actions such as fund release or insurance activation. Fintech–bank APIs ensure rapid disbursement of funds, while regulatory systems continuously monitor for AML/KYC compliance. The entire process is transparent to all authorized stakeholders, reducing both procedural delays and the potential for fraud (ICC, 2024; WEF, 2024).

4.6 Value Proposition

This integrated model directly addresses major barriers to SME trade finance. It reduces information asymmetry by leveraging blockchain authentication and alternative data analytics, lowers transaction costs through automation and interoperability, and improves access by enabling inclusive risk assessments and streamlined compliance. For SMEs in digitally fragmented regions, the model's modular design allows partial adoption where full technological integration is not yet feasible, thereby expanding its global applicability (World Bank, 2024; WTO, 2024).

4.7 Theoretical Linkage

From a theoretical perspective, the model aligns with information asymmetry theory by expanding the quality and quantity of borrower information available to lenders, thus reducing adverse selection. Transaction cost economics is addressed through automation and standardized digital workflows, which lower search, contracting, and enforcement costs. Risk mitigation theory is operationalized via blockchain's immutable records, compliance-by-design features, and multi-actor monitoring. Finally, platform theory underpins the central role of the digital trade platform, where network effects amplify value as more SMEs, financiers, and regulators join the ecosystem (Akerlof, 1970; Coase, 1937; Williamson, 1985; ICC, 2024).



5. IMPLEMENTATION CONSIDERATIONS AND IMPLICATIONS

Successful deployment of the proposed conceptual model for enhancing SME access to trade finance requires careful attention to policy, regulatory, technological, and capacity-building factors, alongside proactive management of potential risks. At the policy and regulatory level, harmonized digital trade standards are essential to ensure legal recognition and enforceability of electronic trade documents across jurisdictions. Initiatives such as the UNCITRAL Model Law on Electronic Transferable Records and the ICC Uniform Rules for Digital Trade Transactions (URDTT) provide important global benchmarks, but national-level adoption remains uneven (UNCITRAL, 2025; ICC, 2024). Strengthening cybersecurity legislation and cross-border data governance frameworks is equally important, given that digitized trade finance processes expose sensitive financial and trade data to transnational cyber threats (BIS, 2024; OECD, 2024). Without such harmonization, SMEs operating in multiple markets will continue to face fragmented compliance requirements, limiting the scalability of digital finance solutions.

Technological infrastructure is another key consideration. For the model to function effectively, digital trade platforms, blockchain systems, and alternative data analytics tools must be interoperable and capable of integrating with existing supply chain management systems. Scalability is critical, as SME adoption will increase data volumes and transaction throughput, requiring robust cloud and distributed ledger infrastructure (World Bank, 2024; WEF, 2024). Public–private partnerships in technology deployment can help reduce costs for SMEs, especially in emerging economies where internet penetration and digital payment infrastructure are still developing.

Capacity building for SMEs is an equally critical enabler. Many SMEs in developing and least-developed economies face digital literacy gaps, lack access to affordable trade platforms, and are unfamiliar with blockchain or AI-based credit scoring tools (WTO, 2024). Programs that combine training in digital finance tools with affordable access to integrated trade finance platforms can significantly improve adoption rates. Industry associations, development banks, and chambers of commerce can play a pivotal role in delivering such training at scale.

Potential risks must also be managed proactively. Cybersecurity threats remain a central concern, especially as increased digitalization expands the attack surface for fraud and data breaches (BIS, 2024). The digital divide — both between and within countries — poses a challenge, as SMEs without adequate connectivity or technical skills may be excluded from the benefits of the model. Furthermore, adoption challenges may arise if financial institutions or regulators are slow to embrace interoperability standards or risk-sharing arrangements.

The implications of implementing this model are far-reaching. For policymakers, there is a need to design policy incentives that encourage digital finance adoption, invest in national and cross-border digital infrastructure, and adopt international interoperability frameworks. For financial institutions, the model necessitates new service models, such as API-enabled co-lending platforms, and innovative risk-sharing arrangements that leverage fintech capabilities while ensuring regulatory compliance (OECD, 2024). For SMEs, the benefits include faster access to trade finance, lower transaction and compliance costs, and improved competitiveness in both domestic and global markets. By reducing information asymmetry, lowering transaction costs, and integrating risk mitigation mechanisms, the model holds the potential to transform SME participation in global trade finance, particularly in digitally under-connected regions (World Bank, 2024; ICC, 2024).

6. CONCLUSION

This paper set out to propose a conceptual model for enhancing SME access to trade finance in a digitally fragmented global economy by integrating digital trade platforms, blockchain technology, alternative data analytics, and structured fintech–bank collaboration. By addressing key barriers such as information asymmetry, high transaction costs, and regulatory complexity, the model offers a theoretically grounded and practically relevant pathway for improving SME participation in international trade finance. Its novelty lies in the comprehensive layering of complementary digital solutions — including compliance-by-design blockchain processes and AI-driven credit scoring — within a harmonized, multi-actor framework that can be adapted Genre and Contribution to diverse market contexts. In doing so, it advances both academic discourse and policy dialogue on how digital transformation can serve as a tool for inclusive trade growth.

Nevertheless, as a conceptual contribution, this model has limitations. It is based on theoretical integration and secondary literature synthesis, without empirical testing or real-world implementation data. Its effectiveness will ultimately depend on contextual factors such as technological readiness, regulatory alignment, and SME capacity in specific markets. Future research should focus on pilot testing the model in targeted trade corridors, conducting sector-specific adaptations (e.g., for agribusiness, manufacturing, or creative industries), and empirically measuring its impact on financing access, cost reduction, and trade performance. Such studies would not only validate the framework but also refine it into an actionable blueprint for policymakers, financial institutions, and SME support organizations worldwide.

REFERENCES

Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *Quarterly Journal of Economics, 84*(3), 488–500. https://doi.org/10.2307/1879431

Asian Development Bank. (2023). *Trade finance gaps, growth, and jobs survey (ADB Brief No. 256).* https://www.adb.org/sites/default/files/publication/906596/adb-brief-256-2023-trade-finance-gaps-growth-jobs-survey.pdf

Bank for International Settlements. (2024). *Project Mandala – Streamlining cross-border transaction compliance (Compliance-by-design pilot).* https://www.bis.org/publ/othp87.pdf

Coase, R. H. (1937). The nature of the firm. *Economica, 4*(16), 386–405. https://doi.org/10.1111/j.1468-0335.1937.tb00002.x

Financial Times. (2025, January). UK's SMEs locked out by trade finance bureaucracy. *Financial Times.* https://www.ft.com/content/9508ae4f-0b02-48be-83cd-9e7d8e881bb1

GSMA. (2024). *State of the industry report on mobile money 2024.* https://www.gsma.com/sotir/wp-content/uploads/2024/04/GSMA-SOTI2024_Report_Executive_Summary_v5-ENG.pdf

International Chamber of Commerce. (2023). *Uniform rules for digital trade transactions (URDTT) and eUCP 2.1.* https://iccwbo.org/news-publications/policies-reports/eucp-version-2-1-icc-uniform-customs-and-practice-for-documentary-credits/

International Chamber of Commerce. (2024). *ICC Digital Standards Initiative – Key trade documents and data elements (KTDDE) and the drive for interoperability.* https://iccwbo.org/news-publications/news/icc-digital-standards-initiative-launches-complete-framework-for-supply-chain-digitalisation/

International Chamber of Commerce Academy. (2023). *Blockchain in trade finance: Challenges and opportunities.* https://academy.iccwbo.org/digital-trade/article/blockchain-in-trade-finance-challenges-and-opportunities/

Organisation for Economic Co-operation and Development. (2024). *Financing SMEs and entrepreneurs 2024.* OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/03/financing-smes-and-entrepreneurs-2024_015c0c26/fa521246-en.pdf

United Kingdom Government. (2023). *Electronic Trade Documents Act 2023 and impact assessment.* https://www.gov.uk/government/publications/electronic-trade-documents-bill-impact-assessment/impact-assessment-of-the-electronic-trade-documents-bill

United Nations Commission on International Trade Law. (2025). *Status of the Model Law on Electronic Transferable Records (MLETR): Jurisdictional implementation updates.* https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records/status

United Nations Economic Commission for Europe, & International Chamber of Commerce. (2024). *Joint call to action: Adoption of digital trade standards (UN/CEFACT and ICC).* https://unece.org/sites/default/files/2024-07/JointCall-Action-adoption-digitaltradestandards_DSI.pdf

World Bank, & Global Partnership for Financial Inclusion. (2025). *Alternative data for MSME finance deployment and policy guidance.* https://documents1.worldbank.org/curated/en/099031325132018527/pdf/P179614-3e01b947-cbae-41e4-85dd-2905b6187932.pdf

World Trade Organization. (2024). *World trade report 2024: Trade and inclusiveness.*

https://www.wto.org/english/res_e/booksp_e/wtr24_e/wtr24_e.pdf

World Trade Organization. (n.d.). *Micro, small and medium-sized enterprises (MSMEs) and trade.* https://www.wto.org/english/tratop_e/msmes_e/msmes_e.htm

World Economic Forum. (2024). *TradeTech: Catalyzing innovation in trade.* https://www3.weforum.org/docs/WEF_TradeTech_Catalysing_Innovation_2024.pdf.