Revolutionizing SME Trade: A Smart Platform for Global Partnerships

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According to the World Bank, small and medium-sized enterprises (SMEs) account for more than 90% of businesses worldwide, employ over half of the global workforce, and contribute up to 40% of GDP in emerging economies. Yet, their participation in international trade remains disproportionately low—particularly in developing countries. Despite their economic significance, SMEs often face substantial barriers to global market entry, including limited access to finance, networks, and information. Addressing these challenges is essential, as SMEs are not only integral to local economies, but also serve as key drivers of innovation and job creation.²

In Mexico, for example, SMEs constitute 99.8% of the business sector, but only around 9% export their goods.³ In Colombia, SMEs generate 79% of employment and contribute 40% to GDP, yet just 11.5% are active exporters (as of 2022).⁴ These low participation rates point to persistent challenges such as limited resources, complex regulatory environments, and lack of market intelligence. In contrast, Vietnam offers a more encouraging example—surveys suggest that more than half of its SMEs are engaged in export activity, thanks

Figure 1. Port of Marseilles in 1754: A Visual Reflection of Trade Complexity



Source. Musée National de la Marine, Paris, France. Joseph Vernet, L'Intérieur du Port de Marseille, 1754 (<u>https://www.musee-marine.fr/nos-musees/paris/collections/oeuvres-phares/linterieur-du-port-de-marseille.html</u>).

to strong government support, integration into global supply chains, and targeted infrastructure investments that facilitate trade.⁵

These contrasting examples underscore the uneven participation of SMEs in international trade and highlight the need for tailored support mechanisms. In many ways, the experience of small businesses attempting to engage in global trade today still resembles the disorder of 18thcentury port activity. Joseph Vernet's 1754 painting of the Port of Marseille captures this vividly—goods laid out in disorder, merchants shouting over one another, confusion over who owns what, even a listing ship in the harbor, and no

en.xml#:~:text=The%20new%20administration%20is%20seeking%20to%20reduce%20the,and%20diversifying%20exports%20to wards%20non-traditional%20higher%20value-added%20sectors.

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² World Bank. "Small and Medium Enterprises (SMEs) Finance", available at <u>https://www.worldbank.org/en/topic/smefinance</u>.

³ International Chamber of Commerce, "New ICC Centre of Entrepreneurship in Guadalajara to boost cross border trade for SMEs", 2 October 2023, available at <u>https://iccwbo.org/news-publications/news/new-icc-centre-of-entrepreneurship-in-guadalajara-to-boost-cross-border-trade-for-smes/</u>.

⁴ IMF eLibrary, "Export Diversification in Colombia: A Way Forward and Implications for Energy Transition", 23 March 2023, available at https://www.elibrary.imf.org/view/journals/002/2023/121/article-A003-

⁵ Samy, Yiagadeesen, et al, "Trade and Women's Economic Empowerment: Survey Results for SMEs Across Six Developing Countries", *SpringerNature Link*, 15 August 2023, available at <u>https://link.springer.com/chapter/10.1007/978-3-031-39039-5_2?utm</u>.

clear system to keep things moving. While ships and terminals today run on software and satellite tracking, too many SMEs remain mired in paperwork, opaque procedures, and fragmented logistics. With today's available and emerging technologies, SMEs no longer need to navigate trade like its 1754.

This paper introduces a conceptual platform framework—dubbed SMETradeX—that seeks to modernize the SME trade experience. While not a developed product, SMETradeX represents a practical, scalable model for expanding SME participation in global markets by building upon and extending beyond traditional matchmaking efforts.

Recognizing this persistent gap, several international organizations have launched initiatives to connect SMEs with global buyers. The Inter-American Development Bank (IDB), for instance, created *ConnectAmericas*, an online platform that helps Latin American and Caribbean SMEs access market information and participate in virtual or in-person matchmaking events.⁶ Similarly, the European Union promotes business matchmaking through programs like the *Enterprise Europe Network*, which links European SMEs with partners abroad through trade missions, training resources, and company directories.⁷

While valuable, these efforts typically emphasize directory listings, one-off business events, trade shows, "how to" webinars, and partnering opportunity listings. They initiate connections but often fall short of addressing the logistical, procedural, and financial barriers SMEs face when converting interest into actual transactions.

Before delving into a comparison of these approaches, let's introduce the SMETradeX concept more fully. SMETradeX is envisioned as a conceptual, always-on, end-to-end digital platform designed to bridge the persistent gap between SMEs in developing countries and global trade opportunities. Unlike traditional matchmaking events or static directories, SMETradeX provides continuous transaction support across the entire trade lifecycle—offering smart form assistance, real-time compliance checks, freight consolidation, access to trade finance, and integration with national Single Window systems like El Salvador's CIEX and comparable platforms in other countries. This comprehensive scope transforms SMETradeX from a simple networking tool into a practical transaction enabler for both SMEs and global enterprises.

To illustrate these distinctions, Table 1 presents a comparative snapshot of traditional matchmaking initiatives versus the SMETradeX platform.

Aspect	IDB ConnectAmericas/EU Matchmaking Programs	SMETradeX Platform
Primary Focus	Business directories, trade fairs, networking events	End-to-end trade facilitation for SMEs
Engagement Model	Event-based, periodic matchmaking	Always-on, continuous matchmaking
Functionality Scope	Connection to buyers, basic company profiles	Smart forms, compliance checks, logistics coordination, financing support, analytics

 Table 1. Comparative Snapshot: Matchmaking Efforts vs. SMETradeX

⁶ Inter-American Development Bank. "ConnectAmericas", accessible at <u>https://connectamericas.com/content/about-connectamericas#</u>.

⁷ European Commission. "Enterprise Europe Network", accessible at <u>https://een.ec.europa.eu/</u>.

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Logistics & Fulfillment	Not integrated	Freight consolidation, courier partnerships, fulfillment services
Financial Access	Limited support through external resources	Integrated trade finance, crowdfunding, sustainability- linked loans
Global Scalability	Regional focus (LAC, EU)	Designed for scalable integration with national Single Window systems worldwide
Technology Depth	Static listings & event scheduling	AI, ML, NLP, Predictive Analytics, API integration with legacy systems

While much attention is often placed on freight handling and customs clearance, the broader logistics environment also involves activities like securing partnerships, navigating regulatory environments, and adapting business practices to meet international standards. These "soft logistics" activities are essential to enabling SMEs to participate in cross-border trade, highlighting their central role in global trade processes.

Opportunities and Challenges of SME Involvement in Imports and Exports

Dual participation in imports and exports offers SMEs the chance to improve their competitiveness and broaden their market reach. By importing intermediate goods and advanced technologies from large businesses in developed countries, SMEs can enhance their production processes, adopt innovative practices, and bring higher-quality products to their local markets. These partnerships allow SMEs to learn from international counterparts, strengthen their capabilities, and drive local economic development. At the same time, exporting allows SMEs to tap into larger customer bases, increase revenue streams, and diversify their product offerings. Realizing these opportunities requires overcoming challenges such as complex regulatory environments, high trade costs, and limited capacity to meet international standards.

Challenges for Large Businesses in Developing Countries

Large businesses in developed countries often struggle to identify suitable SME partners in developing markets due to limited local market knowledge, cultural differences, and inadequate networks. These challenges are particularly pronounced in sectors where SMEs could play an important role in providing intermediate goods, value-added services, or localized support. Overcoming these obstacles requires effective strategies such as conducting thorough market research, building trust through long-term relationships, and leveraging digital platforms to bridge the gap between large and small enterprises across borders. Facilitating these connections not only benefits large businesses but also empowers SMEs by integrating them into global supply chains and fostering economic growth.

Introducing the Global Platform to Enable SME Participation in Global Trade

Many developing countries operate national digital systems that streamline the clearance and approval processes for international trade. In El Salvador, this function is served by CIEX (Centro de Trámites de Importaciones y Exportaciones), a Single Window system that centralizes all trade-related administrative procedures, enabling faster and more efficient processing of import and export documentation. SMETradeX concept is designed to integrate with such systems—not only CIEX, but also comparable Single Window or customs management platforms worldwide—to ensure seamless coordination and information sharing. This interoperability is key to facilitating SME participation in global trade by linking them directly into the country's formal trade infrastructure.

A conceptual solution for addressing these interconnected challenges is SMETradeX, a global matchmaking and trade-enabling platform tailored specifically for SMEs in developing countries. SMETradeX is designed to facilitate two-way trade engagement: assisting SMEs in exporting their products to international markets while simultaneously helping them connect with large enterprises seeking partnerships in developing countries for imports of intermediate, semi-finished, or finished goods.

SMETradeX leverages advanced artificial intelligence (AI) and machine learning (ML) algorithms to enhance its functionality. AI-driven smart forms utilize natural language processing (NLP) to auto-fill export documentation, cross-check compliance requirements, and minimize human error. Meanwhile, predictive analytics help optimize freight consolidation by identifying the most cost-effective shipping routes and grouping SMEs with complementary logistics needs. The AI-powered matchmaking engine employs data-driven algorithms to connect SMEs with suitable international buyers or suppliers based on trade preferences, industry trends, and previous transactions. These technology applications streamline processes, reduce administrative burdens, and make global trade more accessible for SMEs.

Technology Integration in SMETradeX

To fully realize its potential, SMETradeX integrates several innovative technologies to support its core functionalities. Table 2 outlines how specific technology enablers drive the platform's capabilities. By structuring these technology applications in alignment with SMETradeX's core functionalities, the platform ensures an efficient and scalable approach to enhancing SME participation in global trade.

Technology Enabler	Connected Platform Capability
Artificial Intelligence (AI) and Machine Learning (ML)	Matchmaking Services (AI-powered matching)
Artificial Intelligence (AI) and Machine Learning (ML)	Smart Export Assistance (AI-powered form assistance, document automation)
Natural Language Processing (NLP)	Smart Export Assistance (AI-powered form assistance, document repository)
Predictive Analytics	Freight Consolidation Services (Cost optimization for LCL shipments, logistics coordination)
Data-driven Algorithms	Matchmaking Services (AI-powered matchmaking of SMEs and enterprises)
Data-driven Algorithms	Freight Consolidation Services (Optimizing SME group shipments)

Table 2. Technology Relationships with SMETradeX Platform Capabilities

Future SMETradeX Enhancements and Expansion Opportunities

While SMETradeX offers a solid foundation for enabling SME participation in global trade, future enhancements could further expand its effectiveness and reach. One of the biggest barriers SMEs face, particularly in developing countries, is access to finance. According to the World Bank, approximately 65 million firms, or 40% of formal micro, small, and medium enterprises in developing countries, have an unmet financing need of \$5.2 trillion annually.⁸ SMEs often struggle due to lack of collateral, high transaction costs, and stringent regulatory requirements.

For example:

- In Colombia, SMEs account for 99.6% of all formal businesses, contributing to 40% of GDP and 65% of employment. However, they struggle with credit access and high financial service costs.
- In Panama, inconsistent investment regulations and a slow judicial system create additional financial hurdles. The cost of SME financing has risen significantly, and lending has declined due to inflationary pressures and tighter credit conditions.

Leveraging Technology for SME Financing

SMETradeX can leverage digital innovations to address these financial barriers by:

- Blockchain for Trade Finance: Using blockchain to streamline trade finance processes, ensuring faster, more transparent, and cost-effective transactions.
- Smart-Form Assistance for Loan Applications: Extending SMETradeX's AI-powered smart forms to prefill loan applications, ensuring that SMEs meet documentation requirements efficiently and accurately. This would also assist financial institutions by reducing transaction time and costs.
- Facilitating Government and Private Sector Collaboration: SMETradeX could act as a bridge between governments, development banks, private lenders, and SMEs to align financing solutions with trade growth objectives. This could include public-private partnership models that provide government-backed credit guarantees to SMEs.
- Financial Institution Partnerships: Partnering with financial institutions such as the Inter-American Development Bank (IDB), IFC, and regional commercial banks to offer tailored trade finance solutions, including working capital loans, sustainability-linked loans, and crowdfunding options.
- Financial Literacy Training through SMETradeX: SMETradeX could include an interactive learning component within the smart forms, providing SMEs with real-time explanations of required financial documentation and guidance on trade finance instruments. A query function could allow SMEs to ask questions and receive automated AI-driven responses to help them navigate financing options.

E-Commerce, Digital Marketing, and Logistics Integration

Expanding SMETradeX's capabilities to support e-commerce, digital marketing, and integrated logistics would allow SMEs to sell directly to international consumers, streamline fulfillment, and increase global visibility. Enhancements could include:

- 1. E-Commerce Platform Integration
 - SMETradeX could partner with global and regional e-commerce platforms such as Amazon Global Selling, MercadoLibre, Alibaba, and Jumia, enabling SMEs to seamlessly list their products for international buyers.
 - AI-powered tools could help SMEs optimize pricing, catalog management, and cross-border compliance.
- 2. Automated Digital Marketing Assistance

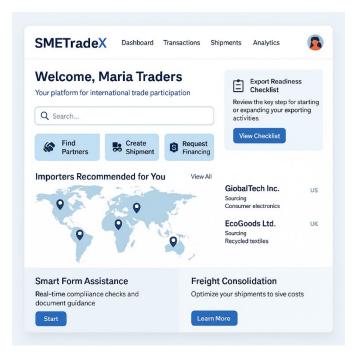
⁸ World Bank. "Small and Medium Enterprises (SMEs) Finance", available at https://www.worldbank.org/en/topic/smefinance.

- Al-driven Search Engine Optimization (SEO) tools to improve product visibility on search engines and e-commerce platforms.
- Automated social media promotion and ad placement, helping SMEs target international audiences with minimal effort.
- Real-time analytics to help SMEs track which products perform best globally.
- 3. Integrated Courier and Logistics Partnerships

To ensure smooth delivery of SME exports, SMETradeX could integrate major global courier and logistics providers such as DHL, FedEx, UPS, Aramex, and regional carriers like Correos de El Salvador or Servientrega (Colombia). This would allow:

- Seamless Shipping Integration: SMEs could generate shipping labels, access real-time rates, and book pickups directly through SMETradeX.
- SME-Friendly Bulk Shipping Discounts: Al-powered freight consolidation could group multiple SME shipments heading to the same country, qualifying for bulk rates and reducing logistics costs.
- Customs and Trade Compliance Support: Integration with courier services could enable automated customs documentation and trade compliance assistance, reducing delays and export errors.
- Real-Time Shipment Tracking & Delivery Insights: SMEs could monitor international shipments and provide better customer service to global buyers.
- E-Commerce Fulfillment Partnerships: SMETradeX could facilitate SME access to fulfillment networks such as Amazon FBA (Fulfillment by Amazon) or Shopify Fulfillment, enabling them to store products closer to major consumer markets for faster delivery.

Practical Illustration: María's Journey to Global Trade Success



Meet María, an entrepreneur in El Salvador who runs a small business specializing in handmade textiles. María is a skilled artisan, but despite her beautiful products, expanding beyond the local market has felt like trying to scale a wall in flipflops. Exporting seems overwhelming—endless paperwork, high shipping costs, and the eternal question: "Where do I even start?"

Enter SMETradeX. María logs into the platform via CIEX and, much to her surprise, discovers a U.S. retailer actively looking for ethically made textiles. Within minutes, the matchmaking engine connects her to a potential buyer. She exchanges messages (with automatic translation assistance, of course—because her English is limited to "Hello" and "Discount?"), and soon enough, a contract is in the works. With her first international order secured, María now faces the dreaded paperwork. But SMETradeX has her back—the smart form assistance feature auto-fills the necessary export documents, guiding her step by step through the process. No need for frantic Googling or a crash course in international trade law.

Then comes the logistics hurdle. María's production volume is small, and shipping costs make her want to cry into her handwoven fabrics. But SMETradeX offers a freight consolidation service, linking her with other small businesses exporting to the U.S. By sharing container space, her shipping costs drop significantly—suddenly, global trade doesn't seem so out of reach.

To her delight, María also discovers that SMETradeX has an integrated shipping solution with a regional courier. She prints labels, books the pickup, and even tracks the shipment in real-time. Meanwhile, the platform's automated marketing tool drafts a sample promotional email and provides guidance on how to promote her products through social media. She experiments with it—and her first international post gets more likes than her town's annual festival.

As demand grows, María accesses the platform's financing module and pre-fills a loan application through the smart form system. She even uses the query function to better understand trade finance loan options. With a bit of help from a local bank integrated through SMETradeX, María secures financing to expand her production.

Throughout this process, SMETradeX keeps her updated on regulatory changes, facilitates access to fulfillment partners, and connects her with training webinars and customer service support. Just like that, María goes from feeling stuck in a local market to confidently shipping globally and growing her business across borders.

A Foreign Enterprise Discovers Opportunity in El Salvador

Meanwhile, GlobalTech Inc., a mid-sized U.S. electronics manufacturer, is looking for new supply chain partners in Latin America. Currently, they source all their components from Asia, but due to rising costs and supply chain disruptions, they are exploring nearshoring options in Central America.

GlobalTech logs into SMETradeX, searching for Salvadoran SMEs specializing in fabric-based electronic casings and sustainable packaging materials—a growing demand for their consumer electronics division. The Alpowered matchmaking system identifies María's business as a potential supplier. While María started with textiles, she has since expanded her operations to fabric-based sustainable packaging solutions, making her an ideal partner.

Through SMETradeX, GlobalTech not only reviews María's supplier profile and certifications, but also accesses customer reviews and verified performance metrics via the platform's analytics dashboard. The built-in translation tool helps the procurement team communicate directly with María's staff, ensuring clarity during contract discussions.

While their procurement team might have initially hoped for a quick search-and-click solution, they found SMETradeX surprisingly helpful—especially when the platform politely suggested suppliers with better lead times than their usual "favorite" spreadsheet. Someone joked that SMETradeX saved them from another "vendor scavenger hunt."

SMETradeX's integration with regional logistics providers enables GlobalTech to schedule consolidated shipments with other SME partners, minimizing delivery costs. Furthermore, the platform's fulfillment

partnership with a nearby hub allows GlobalTech to store finished products in El Salvador and fulfill regional orders more efficiently. but also accesses customer reviews and verified performance metrics via the platform's analytics dashboard. The built-in translation tool helps the procurement team communicate directly with María's staff, ensuring clarity during contract discussions.

SMETradeX's integration with regional logistics providers enables GlobalTech to schedule consolidated shipments with other SME partners, minimizing delivery costs. Furthermore, the platform's fulfillment partnership with a nearby hub allows GlobalTech to store finished products in El Salvador and fulfill regional orders more efficiently.

After a series of virtual meetings and sample orders, GlobalTech and María finalize a long-term supply agreement. With the help of SMETradeX, María is now not only exporting her textiles to retailers but also supplying innovative packaging solutions to a global electronics firm—something she never imagined possible.

This partnership benefits both sides:

- GlobalTech reduces costs and strengthens its supply chain with a reliable nearshoring partner.
- María's business scales up by moving into high-value manufacturing for global markets.
- Salvadoran industry grows, reinforcing the country's role as an emerging trade hub.

Conclusion

Implementing SMETradeX, however, is not without its challenges. One significant technical hurdle is the integration of SMETradeX with legacy government systems, which often rely on outdated software architectures. Bridging new digital platforms like SMETradeX with these legacy systems typically requires middleware solutions or Application Programming Interfaces (APIs) that allow different systems to communicate and exchange data securely and efficiently.⁹ While these technologies are well-established in the IT world, their deployment must be customized for each country's institutional and technical context.

The integration of an SMSE matchmaking platform with existing systems like CIEX presents a comprehensive solution to the challenges faced by SMEs in developing countries. While this paper illustrates the concept through the example of El Salvador, similar scenarios can unfold in many other countries where large enterprises in developed economies seek reliable partners in emerging markets. Whether in Latin America, Africa, or Southeast Asia, SMETradeX has the potential to foster mutually beneficial trade relationships between SMEs and global businesses, strengthening supply chains and accelerating economic development.

Just as María transformed her small textile business into a global success with the help of SMETradeX, countless other entrepreneurs stand to benefit from access to international markets, streamlined processes, and cost-effective logistics solutions. By streamlining trade processes, facilitating partnerships, reducing costs, and offering advanced tools for growth, this platform concept has the potential to empower SMEs to expand their global presence.

By positioning SMEs at the forefront of international trade, platforms like the SMETradeX concept can contribute to broader economic development, creating pathways for sustainable and inclusive growth in

⁹ IBM. "What is Middleware?", available at <u>https://www.ibm.com/cloud/learn/middleware</u>.

developing countries worldwide. María's journey illustrates how technology-driven trade facilitation can transform small businesses, proving that with the right tools, no entrepreneur is too small to think big.

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This paper is the seventh installment in Dr. Kent's *For the Beauty of Logistics* series, a collection of short papers that explores how logistics principles intersect with economic, policy, and infrastructural systems to drive innovation, optimize complex processes, and reveal deeper insights into global dynamics. Previous papers in the Series can be found here:

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