FALL 2022
THE WILSON QUARTERLY

The Role of Nearshoring in Shoring Up Supply Chains

JERRY HAAR

From manufacturing to tech to critical minerals, can Latin America rival Asia for sourcing goods and services?

Both the United States and global supply chains are still in the throes of recovery from the COVID-19 pandemic. What began as a severe shortage of personal protective equipment and health supplies metastasized into a full-blown crisis of shortages of both consumer and industrial products, resulting

in major disruptions of many industries. An excessive reliance on sourcing from Asia (mainly China) and insufficient buffer stocks were the principal culprits in this supply chain crisis. To avoid such a calamity in the future—and to overcome current sourcing challenges—many industries have turned to *nearshoring*.

The concept of nearshoring refers to an approach to business when a manufacturer or service provider moves all or part of their business to another geographical location, usually one relatively close to the company's area. Nearshoring is a variant of the larger concept of outsourcing, which was first recognized as a business strategy in 1989 and became an integral part of business economics throughout the 1990s. In the relatively recent *Deloitte Global Outsourcing Survey*, the authors estimated that the global outsourcing market would grow by more than $40 billion by 2025. The Deloitte study also found that 87 percent of IT businesses have considered nearshoring to cut costs. While nearshoring is typically associated with manufacturing—such as apparel, medical devices, electronics, automotive components, and pharmaceuticals—services such as business processes, IT services, and software and systems design are also prominent.

Nearshoring is not new. It began in 1964 with the Mexican government's Programa de Industrialización Fronteriza ("Border Industrialization Program"), better known as *maquiladoras.* The

Mexican State of Jalisco, especially its capital of Guadalajara, is illustrative of nearshoring's prominence. From the 1960s onward, scores of foreign companies—including IBM, Siemens, Motorola, and Hewlett-Packard—set up shop in that locale. The Mexican peso crisis of 1994 gave the country a cost advantage over China, due to the currency's devaluation. However, China's admission to the World Trade Organization in 2001 devastated Mexico's tech industry and resulted in many factory and engineering jobs moving to Asia. Guadalajara in particular reinvented itself, as Andrew Selee, president of the Migration Policy Institute, points out, with a major focus on research and development, programming design, and other high-skilled technology occupations. Oracle, Intel, Wipro, Flex, HCL, and other multinationals form part of the vibrant technology cluster in the State of Jalisco.

> With 10 major seaports, more than three dozen international airports, and a 2,000-mile border with the US, Mexico has capitalized on these assets to boost trade, investment, finance, employment, and revenue.

A fair assessment of the feasibility of embarking upon a nearshoring strategy must consider both the pros and cons of such a decision. On the plus side, a close-in locale for manufacturing, whether for subassembly or full production, means that travel to the site can be more frequent. This can prove very beneficial for the company when it comes to quality control. Another positive aspect is improved vigilance of intellectual property— cybertheft, cyberattacks, and the misuse of intellectual property can jeopardize the competitive advantage of an enterprise.

Still another big benefit of nearshoring is the ease of operating in a more convenient time zone. If a Chicago-based company avails itself of nearshoring call center services in Medellín versus Manila, it makes a world of difference for the enterprise. There are still other benefits, such as faster delivery of products from manufacturer to the distributor, wholesaler, retailer, and customer. Speed to market—especially in the fashion industry—is essential. And here, too, quality control and improved supply

chain efficiency are paramount. While it is true that in Asian nations such as China and India costs can be up to 70 percent lower and lead times can be significantly shorter, intellectual property protection is still below par, wage rates are increasingly significant, and the Chinese government tilts the scales in favor of homegrown companies. One should note, too, that whereas fuel prices for over-the-road transport from Mexico to the US have increased by 30 percent of late, some rates for air and sea cargo transport have ballooned to 500 percent.

Recognizably, there are certainly disadvantages, which companies may tend to overlook in their enthusiasm for the prospect of nearshoring. These include the price of labor (not just hourly wages), supplies (which may cost less elsewhere), and taxes (which could also be numerous and costly to the firm). Still other negative features could include a restricted talent pool, the need to train workers for production changeovers, increased security threats, and a slew of global operational and business issues such as work stoppages, strikes, absenteeism, political instability, and economic problems.

Two 18 wheelers on highway. 5m3photos/Shutterstock.

Looking at the Western Hemisphere, nearshoring remains a sourcing consideration for companies for a host of reasons, many mentioned above. For these firms, their suppliers and customers, and governments in the region, the overarching question arises: How feasible is nearshoring for Latin

America and its global supply chains?

In a study released in June 2022 by the Inter-American Development Bank, researchers calculated that nearshoring could add an annual $78 billion in exports of goods and services in the region in the near and medium terms, with the big winners being the automotive sectors, textiles, pharmaceuticals, and renewable energy. Mexico and Brazil would benefit most. Of the estimated $78 billion, 82 percent would comprise exported goods and 18 percent exported services.

According to Steve Taplin, CEO of Sonatafy Technology, "The region is one of the most reliable places to access high-end developers via nearshoring, leveraging a low-cost labor market, rich natural resources, and an expanding consumer market."

In scrutinizing the Americas for the best prospects for nearshoring—considering manufacturing, services, and distance to the continental United States; and based on capabilities and performance to date—five countries dominate: Mexico, Colombia, Costa Rica, the Dominican Republic, and Panama. (If nearshoring of services were the only criterion, then Argentina, Brazil, Chile, Uruguay, and the English-speaking Caribbean nations would also be included as viable locales.)

> For both commercial and security reasons, sourcing critical minerals from Latin America and the Caribbean is indispensable.

Just what makes those five countries competitive destinations for nearshoring? To begin with, geography and time zones similar to those of the US and Canada permit quick and agile collaboration compared with other parts of the world. Another advantage for the Latin American and Caribbean region is the huge and ever-growing talent pool of software product development, systems engineers, and digital technology specialists—all at labor costs far less than in the US and Canada. Besides the ease of travel due to many airlines having US hubs serving the region, there is also cultural affinity, made stronger with so many Spanish-speaking US citizens, both Hispanic and non-Hispanic.

The competitive assets of Mexico, Colombia, Costa Rica, Panama, and the Dominican Republic make them ideal locales for nearshoring. Let's briefly look at each country.

Mexico

No country is better positioned to benefit from US firms' nearshoring than Mexico. With 10 major seaports, more than three dozen international airports, and a 2,000-mile border with the US, Mexico has capitalized on these assets to boost trade, investment, finance, employment, and revenue. Mexico is the original home of the *maquiladora* (offshore coproduction center), and the United States–Mexico–Canada Agreement, combined with low-cost manufacturing, give Mexico a competitive advantage both within and outside the Western Hemisphere, even over China in a number of cases. According to Franklin Templeton Mexico, nearshoring investment is expected to double in 2022; and the Inter-American Development Bank plans to inject up to $2.25 billion to foster nearshoring in Mexico. Semiconductors, advanced packaging, critical minerals, and pharmaceuticals are some of the sectors where Mexico will benefit from nearshoring. To illustrate, in April 2022 Mattel decided to redirect its current efforts from Asia to Mexico, announcing a $50 million investment in Monterrey. Both the public and private sectors are committed to improving education and training across the nation, especially among Mexico's competitive industrial clusters, such as medical devices in Tijuana, electronics in Guadalajara, the aerospace industry in Querétaro, and textiles in Puebla.

Colombia

Colombia ranks highest for outsourcing destinations in Latin America. Three years ago, the Colombian government approved a new ministry: Ministerio de Ciencia, Tecnología, e Innovación—science, technology, and innovation. This new ministry will have a representative who sits on the council of ministers with the goal of appropriating more resources to develop research projects.

On the outsourcing front, Bogotá alone produces 67,000 higher-education graduates every year; and of those, 17,000 are technical graduates. The combined workforce of the IT and business process outsourcing industry in Bogotá is over 50,000. Colombia is also one of the countries with excellent tech institutions. Its universities churn out approximately 13,000 software development students annually. From 2001 to 2013, universities in Colombia produced over 340,000 IT experts.

Colombia offers generous incentives for life sciences start-ups to conduct R&D and clinical trials. Investments in science, technology, and innovation projects receive a 100 percent tax deduction, a 25 percent tax discount, a 50 percent future tax credit, and about $10 million in government grants. As of August 2022, more than 60 companies have signed contracts to nearshore to Colombia in agroindustry, chemicals, the life sciences, and metalworking.

Costa Rica

Costa Rica checks all the boxes for nearshoring. Presently, 20 *Fortune* 100 companies and 250 multinationals have chosen it as an outsourcing destination, including Microsoft, Intel, IBM, Amazon, and Google. Illustrative is Intel. Since 1997, the firm's presence in Costa Rica has supported the country's growth and catalyzed foreign direct investment. Last year, Intel Costa Rica increased its investment to $600 million and tripled the number of announced jobs.

Costa Rica has become a preferred destination for leading global firms in medical technology, with $5 billion in exports in 2021—a growth rate of 36 percent from the year before. Roche, Bayer, Boston Scientific, and other health technology firms are scaling up their R&D activities in Costa Rica in particular. The country's knowledge-intensive industries, smart manufacturing, and free trade zones are other nearshoring assets. With highly educated and skilled developers in the technology arena—and professional-level English proficiency—skill levels, in general, are quite high. Coursera Global Skills Index 2022 ranks Costa Rica among the top five countries in Latin America and the Caribbean.

Panama

Panama is ideally positioned to serve as a major nearshoring locale, given its highly advantageous geographical location and its logistics prowess. The global COVID-19 pandemic accelerated the implementation of the automation of logistics processes such as the release of cargo online, which cuts delivery times and allows greater efficiency. The Colón Free Trade Zone—the largest free port in the Americas—is home to more than 2,500 companies, including Black & Decker, Calvin Klein, Diesel, Fisher-Price, and Westinghouse.

Panama is also home to Ciudad del Saber (City of Knowledge), a government-sponsored cluster of academic organizations, technology companies, and nongovernmental organizations, managed by the

foundation of the same name.

Two laws—SEM and EMMA—are very pro-business and roll out the red carpet for companies in both manufacturing and services that are considering nearshoring all or some of their operations; and incentives are built in to transfer technology and skills to Panamanians. For some time now, Panama has capitalized on the best connectivity in the region for offshore services in finance, call centers, and information technology in general.

The Dominican Republic

For the last two decades, multinational companies based in the United States and Europe have transferred a significant part of their production processes from China and Southeast Asia to the Dominican Republic to reduce costs and increase productivity. As a major industrial hub in the Caribbean Basin region, firms such as Eaton, GE Energy, Johnson & Johnson, Medtronic, and Rockwell Automation have set up shop in the Dominican Republic. In fact, 8 of the top 30 companies in the world use the country as a production base for electrical components, jewelry, electronics, textiles, footwear, and many other industries.

Besides having a good port and logistics infrastructure, and a pro-business environment, the Dominican Republic's labor costs are lower than China's. To nurture local business talent, the nation created the Cybernetic Park of Santo Domingo in 2000. The aim is to spur industrial innovation and support the creation of innovative start-ups. It resides in the center of a major campus that includes:

- The Technological Institute of the Americas, which provides certified training in several areas of technology, such as software development, information networks, multimedia, mechatronics, automated manufacturing, and computer security.
- A free trade zone where 16 companies with more than 200 employees operate.
- A business incubator (Emprende) to foster new start-up development.

Here, a big caveat is in order: One should not be under the illusion that *offshoring*—be it to Asia, Latin America, Africa, or Central Europe—is a panacea, or that the outsourcing choice is always between distant offshoring and nearshoring. Companies are replete with negative offshoring

experiences that have led them to *reshore* their business operations. These include high transportation costs, long lead times, the risks of supply chain disruptions, currency fluctuations, and periodic glitches in the manufacturing process. Companies such as GE, Ford, Eli Lilly, Boeing, and Zentech have reshored many of their operations in recent years. Additionally, whether by choice (corporate altruism) or necessity (stakeholder pressure), more and more companies are incorporating *sustainability* as a metric in their business performance. Reducing the firm's carbon footprint and improving customer satisfaction through other environmental, social, and governance measures can have positive effects with respect to both brand loyalty and customer satisfaction. This can be achieved more easily through reshoring business operations, potentially adding $443 billion to the domestic economy over the next few years.

Nevertheless, nearshoring will continue unabated—in fact, it will accelerate—and our hemispheric neighbors are well positioned to take advantage of this trend. However, to do so, they must develop what I call an "installed base of synergistic and sustainable production capabilities," which means harnessing the physical and human capital that can match those of competing outsourced locations. What they cannot control, but only influence, are the business environment factors (e.g., tax, regulatory, economic, security, infrastructure) that also weigh heavily in a company's sourcing decision.

Aligned with the recommendations of the Inter-American Development Bank, in order for Latin America and the Caribbean to do a far better job in attracting nearshoring business, the region must prioritize three areas: (1) investment (each $1 invested in investment promotion produces $42 in foreign direct investment: (2) infrastructure (a 10 percent reduction in international shipping costs will boost export values by 30 percent); and integration (converging and harmonizing more than 33 preferential trade agreements would increase intraregional trade by 12 percent).

Opportunities with critical Minerals

Finally, one arena of nearshoring that is often overlooked is *critical minerals.* For both commercial and security reasons, sourcing these resources from Latin America and the Caribbean is indispensable. Sourcing critical minerals from nearshore locales is a necessity for the US, especially in light of growing demand from the high-tech, transportation, and defense industries.

From a security perspective, the current state of America's deployment of critical minerals is

troublesome. China dominates investment in the "lithium triangle"—Argentina, Chile, and Bolivia—and accesses copper, nickel, iron ore, and gold investments for both processing and extraction. For rare earths, a subset of critical minerals, China possesses 85 percent of the processing capacity.

What about the US government's role in encouraging nearshoring for *geopolitical* reasons—moving supply chains from China to lessen dependence on that nation for production while supporting sustainability of our hemispheric neighbors? On April 26, 2022, Representative Mark Green (R-TN) introduced the Western Hemisphere Nearshoring Act (HR 7579), a bipartisan bill that aims to accelerate economic development in Latin America through nearshoring. Using nearshoring to help Latin America and the Caribbean will also safeguard the interests of the US.

While Latin America won't replace China anytime soon, nearshoring in the region is not only feasible but also a concrete reality that has the potential to bring substantial supply chain benefits to producers, to consumers, and to the nations that have competitive assets in manufacturing and services.

Jerry Haar is a professor of international business at Florida International University and a fellow at the Woodrow Wilson International Center for Scholars and at the Council on Competitiveness. He also serves on the board of the World Trade Center Miami.

Cover photo: Aerial view of the Moin Port in Limon Costa Rica, Gianfranco Vivi/Shutterstock.

Up next in this issue

Confronting Challenges in Supply Chain Policy

– Duncan Wood, Cordell Hull, and Jasper

Jung

The Wilson Center's resident supply chain expert leads a conversation between General Motors' head of global policy and a fmr. Commerce Dept. official about supply chain policy.