"Offshoring" Onshore: Exploring Mexico's Manufacturing Advantages

Ten reasons why investing in Mexican manufacturing makes sense for A&A companies.

by Thomas Huber, Hans-Werner Kaas, Asutosh Padhi, and José Maria Rancaño

Automotive players seeking competitive new production platforms regularly turn to Mexico. This trend is confirmed by foreign direct investments (FDIs) in manufacturing that have grown at an annual 12 percent rate throughout the 2000s. Nearly 60 percent of these FDIs come from the United States, with Europe contributing nearly 35 percent. These investments have led to automotive production rates that exceed two million units a year today, and analysts expect light vehicle production to expand by 4 percent annually to over 2.4 million units in 2012, as key producers establish new plants and others boost capacity at existing ones.

Exhibit 1:

MAJOR OEMs CONCENTRATE PRODUCTION IN THE NORTHERN AND CENTRAL STATES OF MEXICO

OEM and main automotive suppliers production sites in Mexico

Top automotive clusters

1 Mexico City area
- Ford (Cuautitlán)
- Chrysler (Toluca)
- GM (Toluca)
- BMW (Toluca)
- Magna (Toluca)
- Daimler (Tianguistenco)

2 Saltillo/Ramos Arizpe
- Chrysler (Saltillo)
- GM (Ramos Arizpe)
- Bosch (Saltillo)
- Magna (Saltillo)

3 Hermosillo
- Ford
- Magna

4 Puebla
- Volkswagen
- Magna

5 Aguascalientes
- Nissan
- Valeo
- Bosch

Source: CRA; HBS; CSM Worldwide, team analyses

Major automotive players have concentrated their production in Mexico's northern and central states (Exhibit 1). Ford, Chrysler, GM, BMW, Magna, and Daimler, for example, have operations in the Mexico City area, while Bosch, Chrysler, GM, and Magna have facilities around Saltillo and Ramos Arizpe. And, as the above lists illustrate, most large OEMs have more than one plant in Mexico.

Ten Reasons for Investing in Mexico

McKinsey & Company research and experience shows that there are 10 reasons why automotive players invest in Mexico.

Exhibit 2:

TOP 10 REASONS FOR INVESTING IN MEXICO

1	Cost	• Mexico has a cost advantage of ~75% compared to the US • Average annual wages for workers are about USD ~7K
2	Talent pool	• Mexico has one of the largest talent pools in low-cost countries worldwide and is second in Latin America only to Brazil (e.g. Mexico has approx. 115,000 engineers) • Mexico has 870,000 workers employed in the manufacturing industry
3	Proximity/ cost of doing business	• In terms of proximity, Mexico has a clear advantage over most other LCC countries (same time zones as US, many direct flights to Mexican cities in about 4 hours) • No language barrier as English is always 2nd language and no major cultural differences
4	Risks and stability	• Mexico has high macroeconomic stability with a very low country-risk index (e.g., lower than Brazil) and a target inflation of the Central Bank between 2-4% • Mexican Peso floats against the US; no risk exposure to Euro
5	Operations	• Productivity difference of Mexico against the US is on average only 8% • Mexico shows a positive productivity trend and was able to close productivity gap by 7% in the last two years (15% difference in 2005) • Mexican plants can excel in quality as shown in the 2008 J.D. Power Gold award for the Toyota plant in Tijuana
6	Consumer market	• In 2006, 1,1 million passenger cars and LCVs were sold in Mexico, which makes it the 15th largest market in the world; yearly growth rates in the past were about 7% and the market is expected to grow to 1,6 million units in 2017 • Plants could be justified on local market demand alone
7	Infrastruc-ture	• Mexico has excellent telecoms and network services worldwide, and very good coverage of the country with roads and railways • Mexican states offer incentives in form of building additional infrastructure
8	Incentives	• Mexican states have a vast system of incentives for attracting foreign direct investments • The states are competing against each other and can be leveraged to significantly reduce investment or operating costs
9	Supplier base	• Mexico has a vast supplier base, covering all parts from electronics to engines
10	Free trade agreements	• Mexico has a network of 12 free trade agreements that give preferential access to 43 countries in North America, Europe and Asia

Source: Team analyses

1) Cost: Mexico has a cost advantage of roughly 75 percent compared to that of the US, providing a significant – and close – source of cheap labor. Asian low-cost countries (LCCs) such as India, the Philippines, China, and Malaysia on average can deliver hourly costs roughly 85 percent below US levels, but newer high fuel costs negates part of this advantage. Furthermore, Mexico easily surpasses Eastern Europe in terms of labor-cost attractiveness.

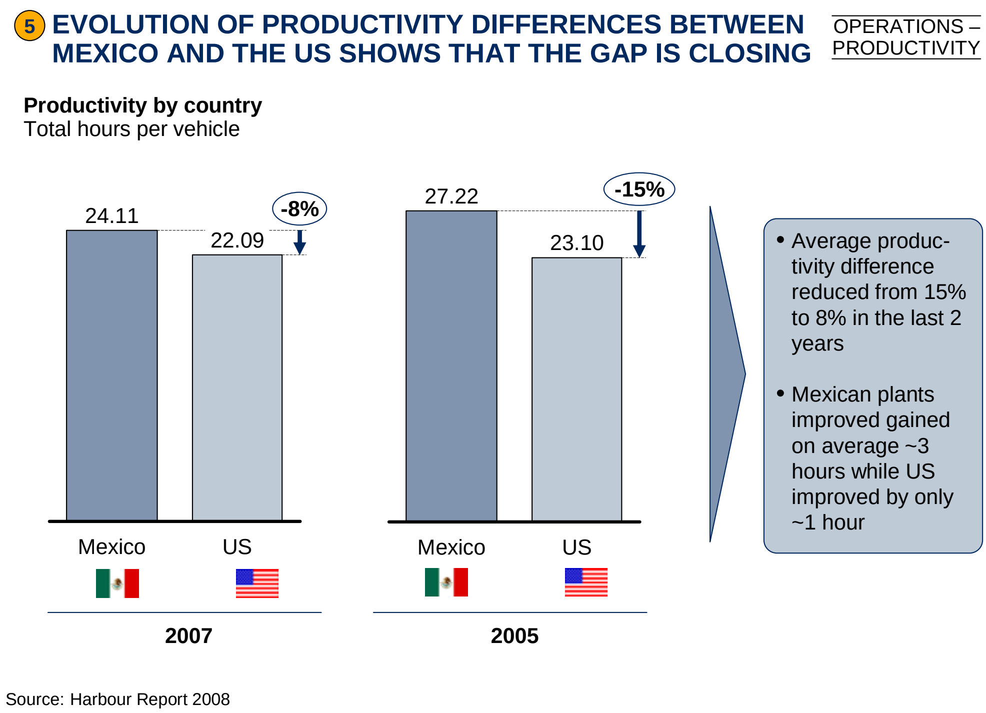
2) Talent pool: The country features one of the largest talent pools of any LCC; second in Latin America only to Brazil. Mexico has approximately 115,000 engineers; 585,000 generalists; and 870,000 workers in the manufacturing industry. For higher-value jobs, however, it can be sometimes difficult to attract the right talent in a short time. This issue has to be proactively addressed by companies even before starting operations in Mexico.

3) Proximity/cost of doing business: In terms of proximity, Mexico has clear advantages over most other LCCs because it shares time zones with the United States and offers numerous US-to-Mexico direct flights of about four hours. For comparison, China has 10- to 14-hour time zone differences from the US and flights between the two countries take about 14 hours.

4) Risks and stability: Mexico benefits from high levels of macro-economic stability and as a result, enjoys a very low country-risk index (e.g., lower than the ratings for Brazil, Russia, Turkey, and Argentina, for example). The Mexican central bank has a target inflation rate of 2 to 4 percent and its monetary policy has credibility in the eyes of international investors. However, Mexico scores slightly worse on the dimension of country-investment risk (includes protection of financial investment).

5) Operations: Light vehicle assembly productivity differences between Mexico and the US average about 8 percent, with Mexico showing recent improvement. For example, in 2005, the Detroit Big 3 had a 15 percent gap in terms of total assembly hours per vehicle; in the last two years, their Mexican plants improved by about three hours on average, while US plants improved by only a single hour, reducing the 15 percent gap to 8 percent (Exhibit 3).

Exhibit 3:



Furthermore, Mexican plants can also excel in terms of quality, as shown by the 2008 J.D. Power Gold Plant Quality Award won by Toyota's Tijuana plant.

6) Consumer market: In 2006, the Mexican market consumed 1.1 million new passenger cars and light commercial vehicles, making it the 15th largest market in the world. Analysts expect the market to grow to nearly 1.4 million units in 2012 and 1.6 million vehicles in 2017, matching the country's gross domestic product expansion. OEMs can justify building local plants based upon local market demand alone.

7) Infrastructure: Mexico benefits from an excellent power and telecommunications system, and well-established and widespread road and railway infrastructure. Regarding logistics infrastructure, manufacturers ship most exports (i.e., up to 80 percent) to the US via road due to the North American Free Trade Agreement (NAFTA). As a result, the country's main industrial centers readily connect to the US via accessible highways. Door-to-door transport costs from Mexico to the US are less than half of those from China, South Korea, or Japan. In addition, Mexico enjoys a logistical cost advantage in shipping to Western Europe compared to Asian and South American countries (Exhibit 4).

Exhibit 4:

7 MEXICO HAS A COMPETITIVE ADVANTAGE IN EXPORTING TO THE US DUE TO EXCELLENT LAND CONNECTIVITY

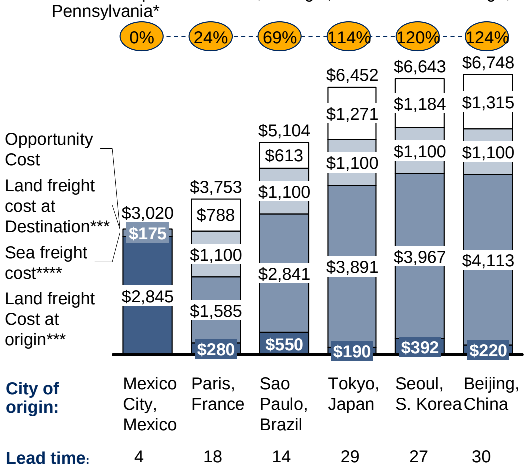
INFRASTRUCTURE

Mexico's main industrial centers are connected to the US by major highways…

Mexico – US major highways and trade corridors

…leading to most exports being freighted by road

Door to Door transport cost simulation door to US
Destination port: Savannah, Georgia; destination: Pittsburgh, Pennsylvania*



* One Forty foot container (FEU)
Source: IMCQ, SCT, NASCO, McKinsey

8) Incentives: Most Mexican states have vast incentive systems for attracting foreign direct investments. These can take the form of direct cash, indirect financial aid (such as corporate income tax breaks), reduced land taxes and grants, or non-financial incentives (such as land, infrastructure upgrades, training, or rent payments). Other aid typically focuses on job creation (e.g., a lump sum for each job created) or operating costs. Furthermore, the states compete against each other and can be leveraged to significantly reduce investment or operating costs.

In one case, a state that won a major new automotive assembly plant agreed to build major highways that connected the site to major ports and other cities. It purchased land for the OEM and agreed to provide scholarships and training for employees. In doing so, it faced competition from three other states, but ultimately provided the most lucrative package to win.

9) Supplier base: The country has a large and well-established automotive supply base, which covers everything from electronics to engines. These suppliers are located primarily in the northern and central states of Mexico.

10) Free trade agreements: Mexico has negotiated a network of 12 free trade agreements that give preferential access to 43 countries in North America, Europe, and Asia. Key among these is NAFTA, which links Mexico with the United States and Canada, as well as agreements with the European Union, Japan, and countries in Central and South America.

So, which challenges remain for companies investing in Mexico? Research by the McKinsey Global Institute (MGI) finds that the rather costly infrastructure (telecommunications and power), the current security situation, and particularly the talent pool, large but with limited suitability for higher-value multi-national positions, are among the most important factors preventing Mexico from realizing more opportunities created by globalization.

Focusing on the HR-related limiting factors, there are a number of issues that companies can proactively address. Many multi-national companies doing business in Mexico have trouble finding suitable talent – especially for high value-added jobs. In addition, an underdeveloped recruiting industry (including headhunters and companies specializing in HR) makes recruiting a rather time-consuming activity. Thus, the key challenge for new companies investing in Mexico is identifying, attracting, and developing the necessary talent pool for higher-value jobs. This can be achieved by designing a comprehensive HR strategy upfront, which includes working closely with Mexico's top universities and best headhunters, and by targeting the right city/region in Mexico (those with top universities and large talent pools). Mexico's government has also already taken steps to improve the situation. For example, the government recently implemented national exams that should make evaluating the qualifications of its talent base more transparent.

Another limiting factor – also HR related – is the security situation. Mexican states show a very different picture regarding safety. There are less secure cities (e.g., Mexico City, cities near the border of the US), but also safer cities such as Monterrey, Guadalajara, and Veracruz. Companies can address this issue by including the security situation as a factor in their regional selection process, which helps them decide where in Mexico to invest. This will serve as a big factor in attracting expats to Mexico.

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Mexico provides US companies with an offshoring opportunity right next door. With competitive labor costs, productivity levels comparable to those of the US, economic stability, and many other advantages, the country offers automotive OEMs and suppliers a pragmatic solution to their global sourcing requirements.

Challenges, particularly setting the right HR strategy, should be comprehensively addressed already in the planning phase.

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