

Whitepaper – Despite Billions in Investment, Supply Challenges Remain for Mexico’s Auto Sector

Seven out of the top ten global automakers now manufacture light vehicles in Mexico, which is the world’s seventh-largest producer in that category*.

According to industry analyst IHS Automotive, auto OEMs alone invested more than \$35 Billion in new or expanded production facilities in Mexico throughout the past 15 years. The list of large Tier One auto suppliers present in Mexico is also impressive. The industry’s presence is far and wide across the country. Light vehicle manufacturers have a total of 18 production facilities located in 11 states of Mexico, where they perform activities that range from assembly and armoring, to casting and stamping of vehicles and engines. Currently, more than 48 car and light truck models are produced in Mexico.

Global Suppliers Abundant in Mexico

Investment in Mexico isn’t limited to the world’s OEMs. Large tier one suppliers also have a substantial presence in the country. Global auto supplying giants in Mexico include:

- Delphi
- Nemak
- Magna International
- Continental
- Lear
- ThyssenKrup
- AutoLiv
- Sanluis Rassini
- Johnson Controls
- Valeo
- Metalsa
- Siemens
- Bridgestone

While these superlatives are impressive and the horizon looks promising, there is a glaring area of concern in Mexico’s auto manufacturing sector and it may prove to be an Achilles heel that hinders future development and expansion. Mexico’s supply base, particularly beneath the Tier One level, needs help.

Mexico’s Supply Base – Inconsistencies Remain

90% of auto manufacturers in Mexico say a strong supply base is very important

23% rate the quality of the local supply base as poor

Source: Entrada Group 2016 survey of 100 auto manufacturers with Mexico operations

A 2016 report by Entrada Group based on a survey of 100 auto suppliers reveals that while the presence of a reliable Mexico supply chain is paramount, quality concerns remain. Ninety percent of respondents currently producing in Mexico said that a strong Mexico supply chain is “very important,” but 23% of that same

* The only holdouts are Groupe PSA (Peugeot, Citroen), Suzuki and Hyundai, the latter of which will start production of its Accent model in the Mexico plant of its sister company, Kia, in mid-2017).

group labeled Mexico's supply base as "Poor." Shortages have emerged along Mexico's local supply chain, and the disconnect between the weight manufacturers place on supply chain and the reliability of that supply chain is a commonly cited issue.

For example, Mexico sources most of its resin from the US and Europe, and lacks access to some of the more sophisticated processes. Particularly, Mexico lacks Tier Two and Tier Three suppliers, including suppliers of injection-molded parts. About 70% of Tier Two and Tier Three basic components used in Mexico are imported into the country, according to Dietmar Ostermann, PwC's global automotive advisory leader. That includes \$6.4 Billion in injection-molded components.

"It is unfathomable that we still have a situation where 70% of Tier Two components are imported mostly from the US," according to a quote from Osterman in a 2015 article in *Plastics News*. "That's a situation that sits not very well with the Mexican government.... It's a situation that doesn't sit well with the major OEMs in Mexico, and it's a situation [on which] the major Tier Ones in Mexico are getting increasing pressure from the OEMs."

Juan Manuel Solana Morales, Consul of Mexico in Detroit, elaborated. "We saw the amount of investment that has gone into Mexico. [Despite that, it] means that we have huge holes of Tier Three and Tier Two products that are not being produced in Mexico that we need."

A 2016 study "Being Prepared for the Next Mexican Automotive Boom," by Roland Berger, a global consultancy firm based in Germany, found that the growth of auto parts production in Mexico lags behind vehicle production, with the gap being closed by the import of parts. In fact, the study found, production is expected to grow at different rates for vehicles and auto parts (9% compared to 1% CAGR from 2016 to 2020), creating a "growing demand-supply gap that offers a domestic auto-parts investment opportunity of \$25 Billion in 2020."

Roland Berger's study found that the Mexican auto parts industry is well established, but falls behind on the Tier Three and Tier Two levels. As a result, OEMs and Tier Ones must import more parts to keep pace with growing demand for vehicles. This growing gap in the supply chain is further exacerbated by the devaluation of the Mexican peso. Ultimately, this means that there are significant opportunities for domestic auto parts producers at the Tier Three and Tier Two levels in Mexico.

Shortage Equates to Supplier Opportunity

The Mexican government is slowly ratcheting upward the percentage of local value-add required in Mexico for NAFTA compliance, and OEMs and Tier One suppliers have a big incentive to source as much content locally as possible. In addition, the more this happens, the more they will save on US, Canadian or European labor, not to mention transport to Mexico.

Many of the big players are resorting to any tactics they can – ranging from cajoling to strong-arming – to persuade their top Tier Two and Tier Three suppliers to establish their own Mexico operations. A survey of about 100 attendees (most with manufacturing operations in Mexico) at a recent Management Briefing Seminar hosted by Michigan’s Center for Automotive Research (CAR), indicates “following a customer” is the top factor pushing suppliers into Mexico — an automaker sets up a plant in Mexico and wants its suppliers nearby.



Source: AMIA, Mexico’s auto industry association

“Quite often we hear, simply, that my customer told me to be there,” says Bernard Swiecki of CAR. “That this product needs to be shipped locally, it’s either fragile or there’s some reason, and the automaker told the supplier that, ‘I need you there in Mexico.’”

In a recent Entrada Group podcast, Daron Gifford, Management Consulting Partner with advisory firm Plante Moran, elaborated on the urgency. “The OEMs have identified their launch program and they have their timing and cadence in place now,” Gifford explained. “The [BMW] 3 Series, for example, is supposed to launch in 2018. So we have a [two-year] window. If you're a supplier to that vehicle and to that [San Luis Potosi] plant, you need to be online and you need to be through all of your certifications, your PPAP, and APQP processes, and make sure your parts are ready to go when that vehicle is supposed to roll off in the production line on job one. It’s very expensive to miss those kinds of deadlines.”

Mexico Can Be Risky, Even with a Client Identified

As compelling as the strengths and potential rewards of Mexico are, fundamental challenges of doing business in a foreign country remain, particularly for smaller and midsize suppliers. Even if a customer invites them or encourages them to jump into Mexico, many struggle with the essential question – Will we be able to make it work and will just one customer be enough to make Mexico sensible financially? The urgency to get to Mexico may be created by OEM and Tier One customers, but the cost, risk and lack of know how may prove too great for many smaller suppliers.

Committing to Mexico operations for just a single client may entail assuming more risk than most midsize suppliers are willing to bear, according to Gifford. “We would not advise people to take on the ‘build it and they will come’

PROCESSES IN NEED IN MEXICO’S AUTO SECTOR



- ✓ PLASTIC INJECTION MOLDING
- ✓ WELDING
- ✓ MACHINE REPAIR
- ✓ STAMPING
- ✓ FORGING
- ✓ FOUNDRY
- ✓ ALUMINUM DIE CASTING
- ✓ HOT FORMING
- ✓ LASER CUTTING
- ✓ FASTENERS
- ✓ HIGH-GLOSS PAINTED PARTS

strategy,” Gifford says. “Getting to [the initial] customer [in Mexico] is key to getting that initial capacity established, getting the operation moving, and getting revenue into the business. But very quickly they need to diversify, and expand and look for other customers that they can supply those components or materials to. The sooner they can do that even before they launch production, the better off they’re going to be.”

A Mexico facility requires capital as well as an opportunity cost – committing to the country may mean foregoing expansion in the US/Canada or elsewhere. In addition, such suppliers also need to clarify their operational needs, evaluating the expertise, equipment and resources for plant equipment and tooling necessary for a successful Mexico operation. This only covers the setup phase, however. They also have to address the successful management of ongoing, high-quality production in a foreign country (in time for their customer’s deadline) as well as future growth. In a nutshell, all of this requires Mexico expertise, capital and a willingness to incur risk. Midsize suppliers need to be aware of all of these elements before engaging in Mexico.

Different Routes to Mexico

There are several different ways for midsize suppliers to launch their Mexico footprint. For most, the option of greenfielding a facility on their own is cost prohibitive. This “go-it-alone” strategy is typically only possible, both financially and in terms of Mexico knowledge, for the OEMs and Tier Ones. Contract manufacturing may be a viable path to Mexico for some smaller suppliers, as it requires less financial commitment. The tradeoff in risk to intellectual property and control of production quality may be too great for many suppliers though. Often with contract manufacturing, the customer is the one that discovers defective product or damage due to transport – and by then it is too late to make modifications, with critical deadlines having been missed. With contract manufacturing, future expansion options may also be limited.

A third alternative for mid-market suppliers entails working with a trusted Mexico partner like Entrada Group, which takes full responsibility for all general and administrative support functions, leaving the supplier free to focus on product quality. This route gives the supplier access to economies of scale and expertise on Mexico, along with less risk. Gifford describes this type of turnkey system offered by providers like Entrada Group as “a very reasonable entry point for a mid-market supplier to get into Mexico and see how it really goes, rather than trying to greenfield their own operations.”

Opportunity Over Risk

Mexico can represent a new phase of growth for midsize suppliers, if managed correctly and carefully with the insight of an experienced partner. Mexico’s status as arguably the most open trading partner in the world (free trade agreements with 46 countries) makes it compelling from the standpoint of new market penetration. Entrada’s experience over the years has shown that

most customers enter Mexico conservatively at first before expanding manufacturing footprint and headcount over the years. In fact, throughout the past decade, Entrada's clients manufacturing for the automotive sector have grown their total headcount by a factor of 24, on average, during their production time at Entrada's manufacturing campus.

Mexico's auto sector has grown in leaps and bounds over the past two decades. Despite substantial investment, however, shortcomings remain in several key areas up and down the supply base. These gaps can yield substantial expansion opportunity for mid-market suppliers that are able to enter Mexico and manage their own operations.