

Prioritizing Investments Across the BRIC Markets

Automotive companies' strategic approaches to the BRIC markets differ tremendously. In general, companies have adopted detailed strategies for each BRIC country and each function in which they are active. However, in our experience, such strategies are often flawed. For instance, some companies focus their investments not on the countries that offer the highest potential profits but on those in which their own operations are already most or least localized. But any investment strategy that is based on the company's current pattern of localization, rather than on a carefully thought out cross-BRIC strategy, is unlikely to realize the BRIC countries' opportunities for growth and profit. On the other hand, a strategy that focuses on standardized cross-BRIC approaches is equally risky, because different levels of localization require different forms of investment.

In our view, companies can optimize their investment activity across the BRIC markets by focusing specifically on the "sweet spots" of localization. We recommend allocating investments in each of the BRIC automotive markets on the basis of the following criteria:

- *The Market's Current Degree of Automotive Industry Localization:* How localized are foreign auto companies' R&D, sourcing, manufacturing, and sales in comparison with their activities in the other BRIC countries?
- *The Outlook for Profit Opportunities:* How will profit drivers, such as market growth, cost-competitiveness, and the availability of local talent, evolve?
- *Future Market Size:* How big will the market be when the investment becomes effective?

With these criteria in mind, it is critically important to de-average the localization process. Companies need to select the particular functions in each of the BRIC countries that offer the highest potential benefits, as well as the particular BRIC countries that offer the best prospects for localizing functions. On the basis of our extensive research and firsthand experience, we have developed a matrix of investment attractiveness by country and function. (See Exhibit 14.) Let's look at the four BRIC markets individually.

Brazil, like *India*, is a prime choice for localizing R&D because it has very specific customer requirements, highly qualified local capabilities, and a relatively low risk of intellectual property loss or employee attrition. Given the relative stability of the Brazilian market and its likely future growth, OEMs and suppliers should reinforce their current positions in the country and invest in improving their cost positions even further. They should also consider the right balance between automated and manual processes in order to cope with the market's volatility in terms of model demand. To avoid overcapacities, companies should invest in expanding organically as well as in identifying and addressing all capacity bottlenecks in existing plants and sales networks.

In *Russia*, with its highly unpredictable market, companies should carefully consider investment decisions. Companies should also try to make their production and sales capacities more flexible—for example, by importing best practices in flexible manufacturing from *Brazil*.

Although *India* is currently the second smallest of the BRIC automotive markets, its expected fast growth and entry barriers against imports qualify it as a good target for further investment, especially in R&D and manufacturing. However, for foreign auto companies to profit from local potential, they must undertake further

localization—for example, by using local R&D capabilities to develop ultra-low-cost opportunities both for India and for global markets. To compensate for the relatively small scale of production, India could be considered as an export base, especially for low-cost components or vehicles.

Among the BRIC countries, *China* should be automotive companies' primary target for low-cost sourcing. It offers a lower risk of currency fluctuations than the other three countries, stricter directives mandating local sourcing, and a much larger number of local suppliers that already perform at high levels and have the potential to ramp up production significantly. China's massive and growing market also makes it a prime contender among the BRIC countries as a site for both manufacturing and sales. China's status as the current and future BRIC stronghold dictates that auto companies should make it the primary focus of their investment strategies. However, to maintain a competitive edge there in view of the Chinese market's rapid growth and keen price competition, companies will need to move quickly to further localize, expanding first their sales and after-sales networks and potentially also their production facilities.

While China's massive market makes it a particularly attractive locale for automotive sales, all four BRIC auto markets are more promising than most other markets. All of them should therefore be considered worthy targets for possible investment in sales infrastructure.

Once a company has determined its investment focus by country and by function, the next step is to decide precisely where to invest and how to embed those investments in effective cross-BRIC strategies.

Formulating a Cross-BRIC Strategy

For many automotive companies, developing an integrated cross-BRIC strategy will be a new exercise. To date, companies have tended to approach the BRIC markets opportunistically rather than systematically, and to consider them individually rather than as elements of a global strategy. To arrive at an integrated cross-BRIC strategy, companies must take two important steps:

- Evaluate the company's current localization profile across the BRIC countries, both in its own right and in comparison with competitors
 - Develop an optimal localization profile on the country and function levels
- ### Evaluating Current Localization Profiles

To assess the present status of a company's localization in the BRIC markets, it is useful to apply a systematic framework. (See Exhibit 15.) We have conducted this evaluation for 49 automotive companies across the four BRIC countries and the four relevant functions. Our analysis revealed that most of these companies follow one of four patterns of localization—BRIC champion, country champion, function localizer, or centralist—while one-quarter of them may be considered selective opportunity seekers, since they do not exhibit a clear pattern.

Exhibit 15. Automotive Companies Follow Five Patterns of Localization

| Localization pattern | Description | Percentage of companies ¹ | Sample localization curves |
|-------------------------------------|---|--------------------------------------|--|
| BRIC champion | Deeply localized in all BRIC countries at settler level or higher | 8 |  |
| Country champion | Localized primarily in one or two BRIC countries, often China or Brazil; less present in Russia | 45 |  |
| Function localizer | More localized in some functions—often manufacturing or sales—than in others | 14 |  |
| Centralist | Localized to a low-to-medium degree—at or below the explorer level—in all BRIC countries | 8 |  |
| Selective opportunity seeker | No discernible localization strategy (typically true of suppliers rather than OEMs) | 24 |  |

Sources: BCG localization database; BCG analysis.
¹Within the BCG study group.

Only 8 percent of the companies we profiled are *BRIC champions*—companies that have achieved deep localization in all four BRIC countries. For example, one German supplier has established the following capabilities:

- In Brazil, it has seven plants and runs a global supplier-development program that enables the company's Brazilian suppliers to provide their products to all the company's worldwide plants
- In Russia, it participates in a local joint venture that has produced emissions control systems since 1995, selling principally to local OEMs
- In India, it has engaged in local production since 1952 and currently operates 11 plants, exporting some 20 percent of their production; it also has a technical center that provides software and engineering solutions for locations in some 15 countries
- In China, it operates 14 branch offices, seven joint ventures, six trading companies, and four R&D centers
 To extend their globalization further, BRIC champions such as this company could consider creating global centers of competence for R&D, sourcing, and manufacturing, as well as enforcing the sharing of best practices across the company.

The largest proportion of companies (45 percent) are *country champions*—companies that focus their localization efforts on one or two BRIC countries. For example, one supplier has no major activities in India or Russia but is strongly localized in Brazil and China.

- In Brazil, where the company has been present since 1978, it operates 11 plants and two R&D centers, exporting some 20 percent of its production; it also does local development of products for production outside Brazil
- In China, which it entered in 1996, it operates three plants and two R&D centers; local customers, including Chery, Geely, and Great Wall Motors, purchase more than half of its production

Companies in the country champion category need to review their current degree of localization country by country and ensure the exchange of best practices from countries in which they are more localized to those in which they are less localized.

Another 14 percent of the companies we evaluated are *function localizers*—companies that focus on localizing certain functions. For example, one Japanese OEM heavily localizes its sourcing and sales in the BRIC countries while keeping local R&D under tight control from headquarters and applying standard Japanese production processes.

- In R&D, all the company's centers outside Japan offer only technical support and development that involves minor adaptations; they do not have research capability
- In sourcing, the company localizes significant shares of its global spending in the BRIC countries (for instance, it sources in China fully 85 percent of the parts and materials it needs for products for the Chinese market, while it sources in India some 75 percent of its spending for new models that it produces in that country); it sources primarily from localized Japanese suppliers with which it has long-term relationships
- In manufacturing, the company produces high volumes in all four BRIC countries, generally employing standard production processes and high degrees of automation
- In sales, the company operates extensive networks that serve a number of third- to fifth-tier cities across the BRIC markets

Companies in the function localizer category need to review their current degree of localization of each function in each country, and to develop clear policies governing the effective distribution of roles between the company's headquarters and local hubs.

Just 8 percent of the companies we evaluated are *centralists*—companies that serve the BRIC countries mainly from their headquarters. One European premium OEM takes this approach, maintaining only minor operations in the BRIC countries.

- In Brazil, the OEM serves the market by means of imports from its European and North American plants
- In Russia and India, it operates local CKD plants that produce fewer than 10,000 units per year; it also maintains an exclusive sales network in each country but conducts no significant R&D or sourcing activities there
- In China, it has a large CKD plant producing 50,000 units annually, as well as a sales network focusing on tier 1 and tier 2 cities; but it conducts no significant R&D or sourcing activities

Companies that operate as centralists need to challenge their current degree of centralization and explore the potential advantages of extending their localization in specific areas.

Almost one-quarter of the companies we evaluated (24 percent) are *selective opportunity seekers*—companies that either have no overall localization strategy or have one that is not evident. For example, one supplier appears to be focusing on different combinations of countries and functions.

- *R&D in Russia*. The supplier operates an engineering office in Novgorod, where some 15 engineers develop technological solutions based on orders from the German headquarters.

- *Manufacturing in Brazil.* The supplier operates plants in Campinas, Camaçari, Porto Real, and São José dos Pinhais to produce axes, suspensions, and body parts. The company also does local production in the other BRIC countries but is less localized there.
- *Sourcing from India and China.* In India, the supplier runs a global sourcing office in Bangalore for automotive components. In China, its sourcing activities have achieved a local sourcing share of close to 70 percent. Automotive companies that have no clear pattern of localization can benefit by reevaluating the attractiveness of their localization opportunities by country and function and then developing a master integration map and strategic plan.

Developing an Optimal Localization Profile

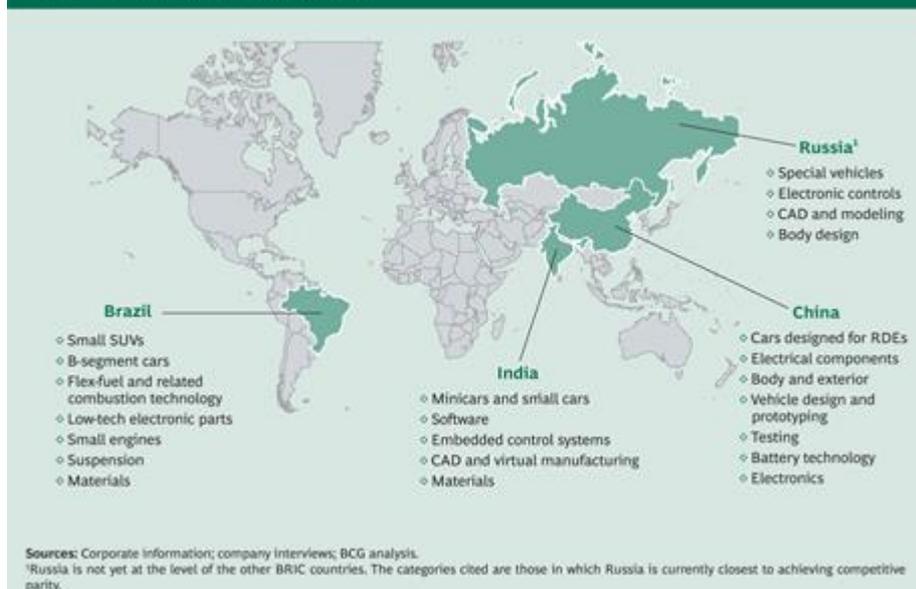
Once a company has identified its current BRIC localization profile, it can be helpful to compare that profile with competitors' profiles in order to identify areas where strategic changes may be needed. However, more is not necessarily better: we do not generally recommend that all automotive companies localize all four functions in all four BRIC countries.

To decide which functions to localize to which degree in which BRIC countries, companies need to address certain core issues relevant to each function. The goal in each case is to achieve the optimal balance between taking a decentralized, market-specific approach and achieving global synergies.

In localizing *R&D*, automotive companies that are experienced in conducting multinational R&D networks stress that it is crucial to assign clear local and global R&D responsibilities that take advantage of each country's particular R&D expertise. Currently, the four BRIC countries have highly diverse areas of R&D focus. (See Exhibit 16.) So, for instance, it might make sense for a company to distribute its R&D as follows:

- Software development in India
- Electronics applications in China
- Alternative fuel technologies in Brazil

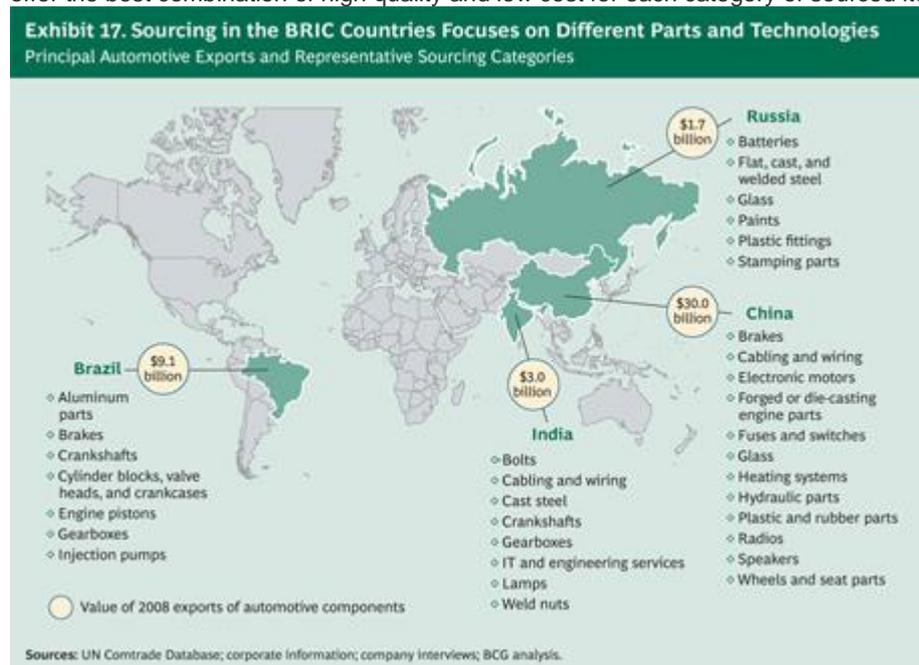
Exhibit 16. R&D in the BRIC Countries Focuses on Different Products and Technologies
Representative Areas of R&D Specialization



Of course, these BRIC specializations would need to be aligned with the competencies in the company's existing R&D centers.

After having identified the focus of R&D in each BRIC country, the company must define the role of each local R&D center as one of the following: an offshore unit, an engineering nucleus, a local engineering hub, or a center of competence. It is generally not advisable for a center to be tasked with playing more than one of those roles. The company must also set forth the rules and mechanisms governing the centers' interactions with the company's R&D headquarters.

In *sourcing*, companies should identify their primary sourcing needs and determine which countries or regions offer the best combination of high quality and low cost for each category of sourced items. (See Exhibit 17.)



Armed with this awareness, a company might choose, for example, to localize its network of sourcing offices as follows:

- Brazil for processed metal
- India for IT and engineering services
- China for electric modules and electronics
- Russia for selected body parts

After deciding where to locate each sourcing office and what it should source, it is important to design a common blueprint and governance tools to link the offices across functions and regions. (Click "Governance Tools Play a Key Role in a Worldwide Sourcing Network" below to learn more.) At the same time, headquarters should ensure that each sourcing office's organization, available functions, and skills reflect country-specific requirements.

[Governance Tools Play a Key Role in a Worldwide Sourcing Network](#)

In *manufacturing*, as noted above, costs are higher in most BRIC countries than in automotive companies' home countries—Brazil being the one exception. To keep costs as low as possible, companies need to take full advantage of the following cost levers, adapting them to local conditions in each location: exploiting scale advantages; benefiting from low-cost labor (for example, by performing noncritical processes manually, as discussed above); carefully managing sourcing (for example, by conducting extensive supplier-development programs); and applying proven quality-assurance techniques.

In designing a BRIC-based manufacturing network, companies should consider adopting one of the following three approaches, depending on whether their primary goal is to secure volume-related cost advantages, maximize their localization, or achieve high quality at low cost:

- *The Global-Scale Network.* To secure volume-related cost advantages, a company should consider establishing one to three large plants in the BRIC countries to supply markets worldwide. One Korean OEM has made India its core manufacturing hub for low-cost minicars, serving all RDE markets from there and thus minimizing investment and maximizing scale effects.
- *The Broken-Chain Network.* To maximize a company's localization, it should consider distributing pre- and final assembly in different countries. For example, one Indian supplier is delivering relatively simple products from India and highly complex products—together with customer support—from the triad markets. This approach allows the company to realize the advantages of low factor costs without compromising quality or service.
- *The Isolated-Empire Network.* To achieve high quality at low cost, a company should consider serving world markets from several regional hubs. One Japanese OEM has been able to shift the production of its pickup-truck models from high-cost Japanese plants to plants in several RDE countries while maintaining its strict quality standards, thus offering products with Japanese performance and quality at competitive prices in the RDE markets.

These three approaches represent different forms of a decentralized but synergistic network, ensuring that operations in the BRIC markets profit from those in the triad markets and vice versa.

In maximizing *sales*, the first requirement is to gain an intimate knowledge of local market tastes, preferences, and requirements so that products can be adapted accordingly. As noted above, consumers' automotive preferences vary dramatically across the BRIC markets. (See Exhibit 18.) And taste is not the only issue. As one of our interview partners from a European OEM put it: "Not only are consumers' tastes highly different, but car buyers in all BRIC countries, and especially in Russia and China, may consider the manufacture and sale of a car that was originally developed for another BRIC country as an insult."

Exhibit 18. Consumers in the BRIC Countries Demand Different Models



It is clear that there can be no such thing as a single, homogeneous "BRIC car." On the contrary, the differences in automotive tastes are much more pronounced among the BRIC countries than among countries in the triad markets. Brazilian consumers demand sporty hatchbacks, Russians want Western sedans and SUVs without adaptations, Indians require ultra-low-cost minicars, and the Chinese prefer luxury-style sedans with flair. The challenge is to produce these various models at sufficient scale to make them economically viable over the next few years, while the individual BRIC markets are still developing and before each one becomes large enough to justify the design and production of an individual, nonstandardized product. One possible way to meet that challenge is to develop a common platform that allows multiple local adaptations for BRIC markets, using local partners to help implement that solution.

For example, a European OEM has developed a vehicle platform for low-cost countries with a standard wheelbase of 2,630 millimeters and a standard track of 1,480 millimeters. To cater to individual market requirements, the company not only has made local product adaptations but also has undertaken country-specific branding and marketing, and has engaged in joint ventures with local partners where appropriate. To satisfy Brazilians' preference for sporty hatchbacks and small SUVs, the company introduced, in addition to its sedan, a hatchback model and a model that resembles an SUV and is marketed as a sporty adventure car. In Russia, the company produces the sedan without major adaptations, collaborating on production and sales with a local partner and enjoying strong government support. The model is positioned to compete successfully against top-selling local vehicles. To meet Indians' need for low-cost products, the OEM redesigned the vehicle to pare away 15 percent of its costs. In China, the car is scheduled for production in 2010; there, too, the OEM will work with a local partner.

After a company answers the core strategic questions for each key function and designs an overall BRIC strategy, the next step is implementation. In that effort, cross-market learning through the exchange of best practices can be invaluable in helping to get strategies "on the road."

In the course of our study, we identified many best practices in every BRIC country. Most of them are found in only one BRIC country, despite the fact that transferring them to other countries could create value. Only rarely are best practices not transferable because of local conditions. In almost all cases, companies can benefit significantly from transferring best practices. For example, a European OEM holds regular dealer conventions in Brazil to identify issues on both sides and improve knowledge and data transfer. The company then convenes small work groups, composed of representatives from both the OEM and the dealerships, to address each issue. This approach could be usefully applied in China, India, and Russia as well.

Six Key Lessons from the BRIC Markets

Throughout this report, we have identified six key lessons for leveraging a company's presence across the BRIC countries.

- 1. Actively allocate investment spending across BRIC countries and functions.** Keeping in mind the company's overall strategy, prioritize the relevance and value of conducting each of the four functions within each of the four BRIC countries. Take into consideration the company's current degree of localization in each area, the prospects for profitable development of each particularly promising combination of function and BRIC country, and the future size and growth of the market.
- 2. Localize R&D to take advantage of local engineering strengths.** For instance, a company might focus R&D in India on software and IT, in China on electronics, and in Brazil on metal parts and low-cost components.
- 3. Seek opportunities to cut sourcing costs according to individual markets' strengths.** For instance, a company might focus its sourcing in Brazil on processed metal, in India on IT and engineering services, in China on electric modules and electronics, and in Russia on selected body parts.
- 4. Orchestrate BRIC manufacturing to optimize cost, localization, and quality.** Use the global-scale approach to profit from volume-related cost advantages, the broken-chain approach to drive localization, or the isolated-empire approach to improve quality and cost.
- 5. Adapt standard designs to meet local needs.** Benefit from scale *and* offer tailored products by using standard platforms with significant product adaptations, local partnering, and market-specific sales and marketing concepts.
- 6. Accelerate localization by transferring best practices among BRIC countries.** Identify and transfer all applicable best practices across all functions and locations.

A final note: Although this report focuses on the BRIC markets because of their size and potential for helping auto companies recover sales volumes lost to the crisis, it is important to recognize that our analysis of effective strategies for achieving deep localization in the BRIC markets can be applied with equal success in other rapidly developing economies, such as Argentina, Indonesia, Iran, Mexico, or Thailand. In all such markets, unique constellations of local capabilities and market tastes require individually tailored approaches. That said, the smaller sales volumes in some RDE markets can exacerbate scale-related localization challenges. The BRIC

countries, in which localization is relatively advanced, can serve as a valuable source of best practices and potential synergies with other RDE markets