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Mastering the Make-in-India Challenge

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BY RAM MUDAMBI, HARITHA SARANGA, AND ANDREAS SCHOTTER

DESPITE INDIA'S ECONOMIC GROWTH and potential, developing a successful strategy for the country remains one of the most complex challenges for foreign multinationals. This challenge is rooted in the hard realities of global scale and costs. Most foreign executives have found it difficult to make money in India with their existing product portfolios at the scale of operations dictated by local demand. In addition, India has not provided foreign direct investment incentives anywhere near those of neighboring China. However, U.S. management consulting firm A.T. Kearney estimated in 2014 that India's share of global trade would be approximately five times greater by 2025 — and at that point would represent 6% of all global trade.¹ Given that growth projection, waiting for a target income segment to reach the break-even level or for greater government incentives to materialize is not the right strategy.

Consider the experience of Apple Inc. India's smartphone market has seen rapid growth, but most of the smartphones being snapped up are priced at less than \$150. This makes even the lowest-priced iPhones expensive by comparison. Consequently, Apple's market share in India is under 5%, in terms of units shipped. In May 2016, Apple CEO Tim Cook went to India for high-level talks that included seeking an exception to the localization requirements imposed on foreign retailers. The company hoped to introduce Apple's retail face and service with a string of its own flagship stores, but India's government at the time upheld a local sourcing requirement of 30% imposed on foreign manufacturers.

This setback for Apple² reflects the Indian government's commitment to executing on Prime Minister Narendra Modi's "Make in India" campaign.³ At the center of the campaign stand reforms that improve the ease of doing business for those foreign companies that are serious about manufacturing in India. It



THE LEADING QUESTION

How can foreign companies sell successfully in India?

FINDINGS

- ▶ Recognize that the high-income segment is smaller than in China.
- ▶ Collaborate with large local partners.
- ▶ Take advantage of local manufacturing while simultaneously adapting global products.

is all about carrots for compliant, spillover-generating foreign companies,⁴ including benefits such as reduced tax hurdles, improved infrastructure, reformed labor laws, boosted workforce skills development, easier land acquisition, and fast-tracked business-license approvals. With China exhibiting slower economic growth and an increasingly challenging intellectual property protection environment,⁵ many foreign multinationals have increased their focus on India. As Bill Maginas, former vice president, high-growth regions for Honeywell International Inc., explained:

India is the next big thing for Honeywell. Amongst our global growth regions, India provides the kind of market opportunity and promising local talent that allows us to execute our high-growth strategy playbook, which is based on an R&D and supply chain platform as the foundation to deep market penetration.

Competing in and with China has become increasingly difficult for foreign multinationals. But, according to former U.S. Treasury Secretary Jack Lew, India represents an immense untapped economic opportunity for U.S. multinationals. For example, India had only 18 cars for every 1,000 citizens in 2014, compared with 83 per 1,000 in China. India is also the world's fastest-growing smartphone market. India's consuming population is predicted to grow much more rapidly than most other large markets.

Besides obvious market opportunities, over the past decade India has developed into an advanced IT service and low-cost manufacturing hub with a large, well-trained, English-speaking workforce,⁶ strategically located in the Asia-Africa-Middle East triangle. Because of the pioneering work of some early movers, India now also boasts a strong local supplier base across many industries.

British construction equipment maker J.C. Bamford Excavators Ltd., a global leader in its industry, entered India in 1979. Today, it dominates the Indian construction equipment market with a 75% market share. The company recently upgraded its local manufacturing facilities to export Indian-designed construction equipment to most of its global markets. Similarly, Foxconn Technology Co. Ltd. the Taiwanese technology manufacturing giant, committed to investing \$5 billion in an electronics manufacturing

plant and R&D center in India. Other Taiwanese electronics manufacturers such as HTC, Asus, BenQ, and Delta Electronics are also planning major investments. David Hsu, deputy director general of the Bureau of Foreign Trade in Taiwan, explained, "Investment in China is too high, but we [Taiwan and China] still treat each other like an enemy. It is good to explore other places, and India is a very good option."⁷

Volkswagen and Hyundai export vehicles made in India to more than 35 markets around the world, including Africa, Southeast Asia, and Latin America. Ford exports cars made in India to Europe and has plans to export made-in-India vehicles to the United States. Harley-Davidson began assembling its iconic motorcycles in India in 2011 and saw its local sales increase by more than 500% in five years. The company is also shipping made-in-India bikes to other Asian nations and Europe. Yamaha already exports India-made sports bikes to its home country, Japan. What all these companies have in common is an understanding that India represents an attractive strategic option to balance out the natural plateauing of China's growth and requires more than just a replication approach to market entry.

Why a Traditional Strategy Won't Work

To provide a solution for success of foreign multinationals in India, we took a close look at more than 80 multinationals, as well as hundreds of local Indian companies. (See "About the Research.") Many foreign executives are frustrated that they cannot replicate the same strategies in India that have led to success in China. One reason is that the local high-income segment, which constitutes the initial target market for most foreign companies, is relatively small in India compared with that of China. This often causes foreign executives to refrain from investing in more extensive value-chain activities in India and delay committing to local manufacturing. The most common approach so far has been to enter India with imported goods, hoping that the targeted high-income segment grows sufficiently to eventually justify local manufacturing. Ravi Venkatesan, former chairman of Microsoft India and engine manufacturer Cummins India Ltd., argues that this approach has caught many large multinational companies in a trap.⁸ According to Venkatesan, most multinationals have some initial success upon

entering India, but their growth then stalls and sales fall short of critical volumes. This inability to generate adequate volume frequently leads to an early exit. The issue is that everybody competes for the same small segment at the top, which is not growing in India at anywhere near the same pace as the comparable high-income segment did in China during its early years of transformation. Chris Clark, an entrepreneur and former consultant at Bain & Co. who travels frequently to India on business, said, “What most executives do not understand about India is that it is a bottom-to-middle income market with relatively small high-income segments. Therefore, you have to localize quickly and broadly in order to win in India.”

Companies that have mastered the approach Clark describes have experienced success. These companies cater to all income segments with global and local designs and use India as a hub for penetrating frontier markets in Africa, Southeast Asia, and Latin America. For example, automakers such as Suzuki and Hyundai, which are market leaders in India, include more than 80% to 85% local content in their most popular vehicles. Another example from the automotive industry is Renault-Nissan. In its Kwid project, Renault-Nissan involved local suppliers right from the initial product-development stage to implement a “design-to-cost” strategy.

Multi-Tiered Income Segments

In China, consumer spending constituted 37% of GDP in 2015; in India, the figure is 59%. This is a notable advantage in today’s global economy, where exports and infrastructure investments do not automatically lead to growth.

However, a strong understanding of India’s different income segments is key for a successful India entry strategy. Unlike China, India’s high-income segments are much smaller as a percentage of the market.⁹ The good news for multinationals is that Indians across most segments spend nearly 69% of their income on non-food consumption. As the workers-to-dependents ratio is projected to improve to just 2 to 1 by 2030, this expenditure is set to increase further.

In high-income segments, Indian customers value global brands and advanced non-Indian technology. Cutting-edge smartphones, German luxury cars, and branded medicines for lifestyle-related ailments are very successful. However,

ABOUT THE RESEARCH

This research began when we were studying the catch-up strategies of emerging market multinational enterprises versus the strategies of multinationals from developed economies competing in emerging markets. We found that foreign multinationals, particularly in high-tech sectors such as aerospace, automotive, and electronics, were dominating their respective industries in India. Initially, we began by talking to industry practitioners and gathering information on domestic and foreign corporations across various sectors in India. We then designed and administered two surveys for primary-data collection; the surveys involved 80 multinational enterprises and 200 local companies, including original equipment manufacturers and tier one and tier two suppliers from a variety of manufacturing sectors in India. We also conducted in-depth interviews with more than 25 senior managers.

In order to understand the business models adopted by foreign multinationals in India and the capabilities of local suppliers, we collected independent secondary data and information on a variety of critical aspects, such as technology and financial joint ventures between multinationals and local players, R&D investments, royalty and “know-how” expenses, level of global versus local sourcing by foreign multinational enterprises, market share, financial performance, and local content in products sold by foreign multinational automakers. To verify and gain a better understanding of our research findings, we went back to the industry experts and carried out further interviews with managers from multinational and domestic customers and suppliers. The strategies and conceptual framework presented in the current article are outcomes of multiple research projects spanning more than five years of our work.

since the high-income segment is relatively small compared with similar segments in countries like China, most foreign multinationals find it difficult to achieve the sales to justify local production. Multinationals successful in the highest-income segment in India include Louis Vuitton, Harley-Davidson, Mercedes-Benz, BMW, and Samsung.

However, Abheek Singhi, a senior partner in the Boston Consulting Group’s Mumbai office, has noted that brands that are globally a notch below the finest appeal to a wider audience and that their reachable high-income segments range from 1% to 15% of the Indian population (roughly 12 million to 180 million people), depending on the industry.¹⁰ Success in this expanded higher-income segment requires that companies develop an understanding of its nuanced differences.¹¹ Consumers here are brand-aware and willing to experiment. While these consumers are willing to spend, their interest depends on a brand’s image, its advanced features, customization options, and some level of local touch in the products.

In contrast, the lower-income segments of the Indian population have the scale and appetite for localized products that contain country-specific features. Approximately 68% of India’s population falls within these segments. To succeed here, it is important to

partner with network orchestrators¹² such as local conglomerates for deep and geographically far-reaching market penetration, while building up production and R&D capabilities for local product development.¹³ Besides India-based conglomerates like Tata Group, Reliance Industries, and Bharti Enterprises, several foreign multinationals have successfully targeted consumers within this segment. Foreign multinationals winning in this segment include Suzuki, Hyundai, LG, Unilever, Emerson Electric, and Yamaha.

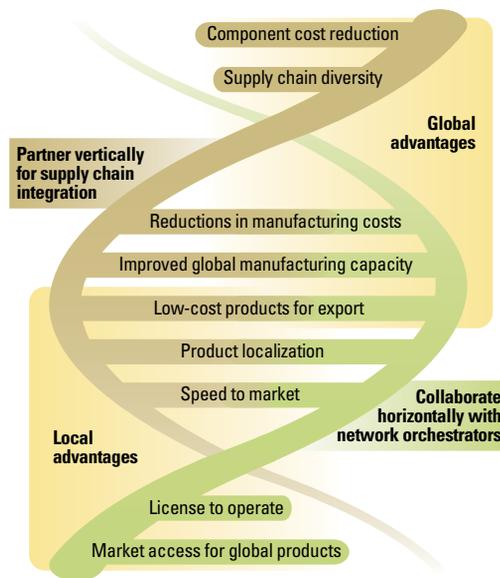
The middle-income segments in India need to be tapped from both the lower and upper ends to achieve critical scale. For foreign multinationals, the middle-income segments are the most difficult ones to compete in, since they require substantial localization efforts, but growing local companies are very competitive. However, when considered as a whole, this segment is much larger than the high-income segment; it consists of nearly 75 million households, or

Creating Make-in-India Advantages

What emerged from our research is a framework for a successful first-time entry into India or for upgrading an existing operation in India that has not been very effective. We call this approach the “make-in-India helix.” (See “The Make-in-India Helix.”) The make-in-India helix arises from combining supply chain integration and strategic partnering with network orchestrators¹⁴ to achieve both an inward-facing strategy aimed at local success in India and an outward-facing strategy designed to support global success. This strategy involves simultaneously taking advantage of local sourcing, manufacturing, and marketing activities in conjunction with local adaptation of global products to generate mutually reinforcing advantages. Successful foreign manufacturers use globally focused assets to improve local sales and locally developed capabilities to deliver more cost-effective solutions for global markets. This combination enables companies to reach successfully across all of India’s income segments, while at the same time developing a springboard for global exports. The result is the localization required to achieve scope and scale advantages in India, which can be leveraged through export.

THE MAKE-IN-INDIA HELIX

Competing effectively in India requires two strategic practices that, when interconnected, create global and local advantages simultaneously. To succeed in India, foreign multinationals need to both partner vertically for supply chain integration (shown in brown) and collaborate horizontally with network orchestrators (shown in green). By connecting local and global advantages from the start, foreign multinationals can penetrate the market quickly and deeply throughout its multitiered income segments.



more than 300 million individuals. In the middle-income segments, customers are very value-conscious, informed, and aspirational. Local manufacturing is critical, since imported products would not be price-competitive. In order to tap into the middle-income segments, a profoundly local marketing and distribution strategy and a strong service focus are critical. Foreign multinationals that have excelled here include Samsung, Bosch, Renault, Ford, and Honda.

Three Key Value Chain Practices

India has a number of country-specific strengths. Its human capabilities and natural resources include low-cost labor, raw materials, processing capabilities, engineering skills, and huge market potential. Most foreign multinationals already possess complementary strengths in technology, new products, brand equity, and a global footprint. These two sets of capabilities and resources have great complementarity. Using insights from our research, we have identified three key value-chain practices for achieving success in India.

1. Collaborate horizontally with Indian network orchestrators to achieve localization advantages.

Network orchestrators are those large incumbents that have deep market access to all customer segments and operate widely across all geographic regions in India. Leading network orchestrators include Reliance Industries, Tata Group, Kirloskar Group, TTK Group, Bharti Enterprises, Arshiya, and Mahindra Group. Finding the right local joint venture or alliance partner is vital for deep market penetration in India.

Historically, India has been known as the “License Raj”¹⁵ because doing business required a foreign company to navigate a highly stringent system of government licensing requirements. The 1991 economic reforms relaxed many such regulatory requirements, but foreign companies still need to acquire various national and local licenses. Although no longer mandated by government regulations for most industrial sectors, a joint venture will help foreign multinationals gain critical local market knowledge to penetrate a range of income segments nationwide. Most foreign-owned subsidiaries are required to achieve a certain level of local content in their products (usually 30%) to receive permission to sell directly to Indian end-consumers. For example, multibrand retailers like Walmart, Tesco, and Amazon.com could get direct access only by forming joint ventures with local partners, while being restricted to 51% ownership in their local operations.

Horizontal collaboration with the right local partner can also bring significant synergies between the advanced product technologies of the foreign multinational and the market access and knowledge of the local player. This in turn allows foreign multinationals to rapidly achieve low-cost manufacturing advantages through the existing facilities of the local partner. The collaboration of the German auto-component manufacturer Robert Bosch GmbH with India’s Motor Industries Co. Ltd. is an example of how the right local partner can be used effectively in a joint venture for both market access and the manufacturing of technologically sophisticated components. Today, Bosch’s fuel-injection systems dominate the Indian automobile industry, with more than 80% market share.

Another foreign multinational that has mastered collaboration with an Indian network orchestrator is Honda Motor Co. Ltd. When the Indian auto market was partially liberalized in 1984 and Japanese automakers were invited in, Honda formed a joint venture with New Delhi-based Hero Cycles Ltd., which had both an extensive distribution network and a deep understanding of local market dynamics. The joint venture started with Honda setting up production facilities in India to manufacture two-wheelers, with both local R&D and an infusion of technical know-how in the partnership. Hero took care of establishing a broad national distribution and service network. Exploiting Honda’s Japanese technology and using

Hero’s Indian marketing network, the Hero-Honda joint venture went on to introduce a series of locally developed motorcycles that became highly popular for their fuel efficiency and low cost.¹⁶

In stark contrast was Apple’s 2008 iPhone launch, which one article called “the biggest failure of a top-notch brand from a well-regarded company in recent times.”¹⁷ First, Apple partnered with telecommunications companies Vodafone Essar and Bharti Airtel, neither of which had experience in retailing handsets or the necessary distribution networks to reach the many layers of complex income segments. Second, Apple’s pricing and sales strategy was not appropriate for the Indian market. In the United States, many service providers give attractive hardware deals to customers and recover their costs via long-term contracts. In India, however, cellphones are mainly sold contract-free to the prepaid market.

2. Partner vertically with local suppliers to achieve local and global sourcing advantages. It is critical that foreign multinationals dive deep into the local supply chain environment and identify reliable suppliers that specialize in critical subsystem manufacturing. Over the past decade, local suppliers across several key industries, including automotive components, chemicals, pharmaceuticals, capital goods, defense, engineering products, visual effects, and video games have reached a level of sophistication that have allowed them to become valuable partners for foreign multinationals.¹⁸ These companies seek to collaborate with multinationals globally and for the long run and are not driven by an indigenous innovation policy that sets them up to eventually become competitors with their foreign partners, as is often the case in China.¹⁹ For foreign multinationals, this critical difference matters.

An additional benefit of sourcing locally is the ability to quickly and effectively respond to changes in market demand. The expertise of strategic domestic suppliers can help accelerate cost-effective product adaptation to local needs. In addition, local sourcing can reduce global component costs.

To be sure, there are challenges to manufacturing in India. Complex land and labor laws mean that transactions like land acquisition can take a long time; the transportation infrastructure is still subpar; and frequent power outages require companies to maintain backup in-house generation capacity. What’s more, in order to take full advantage of local

supply chains, foreign executives have to overcome mental models that hold them back from investing in India because of the fragmented local demand.

Instead, foreign multinationals need to link their Indian suppliers to their global supply chains to generate scale. For instance, Bosch wanted to localize sourcing of high-speed steel used for manufacturing fuel injectors for vehicle engines. However, its local order volume was too small for Indian steel suppliers to invest in the required production technology. Bosch recognized the broader supply chain opportunity and decided to transform its Indian business into a global center of excellence,²⁰ providing its local suppliers with some of the technology investment up front in exchange for a longer-term discounted price. The Bosch India Group now supplies to numerous Bosch manufacturing operations around the world.

Another example is Suzuki Motor Corp. Suzuki entered the Indian passenger vehicle market in 1982 through a joint venture with Maruti Udyog Ltd., an Indian company with public-sector roots. However, Suzuki's existing components suppliers in Japan were reluctant to follow the company into the then-relatively small and uncertain Indian market. In order to solve the problem, Suzuki facilitated a number of technology and equity partnerships between its Japanese suppliers and Indian components makers.²¹ Soon the local suppliers were able not only to supply components and subassemblies to the specifications Suzuki provided but also to help Suzuki customize products to local customer needs. The supply chain partnerships led Suzuki to dominate the Indian passenger vehicle market for more than three decades, maintaining a share of nearly 50%. Maruti Suzuki today exports cars manufactured in India to over 125 countries.

3. Leverage local and global products simultaneously. Foreign multinationals should first introduce their latest products in India for the upper-income segment and then quickly localize to accelerate market penetration across multiple income segments. While Indian customers are very fond of foreign brands, a combination of foreign-brand reputation and relevant locally sensitive product features is mandatory for widespread success. Having only one of the two dimensions right will not suffice in most income segments. For example, when Fiat introduced

its retro-styled Fiat 500 in the luxury-car segment in India, sales flattened within a couple of years, mainly due to a mismatch between product features and customer needs. What Fiat did not see was that India's higher-income segment customers aspired to a vehicle that would "intimidate the heck out of everyone else on the road," not "little runabouts with a cuddly design aesthetic,"²² even if luxurious.

LG Electronics Inc.'s experience in India demonstrates the advantages of localizing products and then launching them in other markets. LG entered the Indian consumer-durables market in 1997 by importing products designed and developed in South Korea. However, local customers found these products too expensive and lacking some important features. LG changed its strategy and set up local manufacturing facilities in India while adapting products to local consumer requirements. For example, it launched a television that included a cricket video game for the millions of Indian cricket fans.²³ LG also developed a unique filtration system for its air conditioners to tackle the high levels of pollution in India's huge cities. By the early 2000s, the company had managed to garner significant market share in India by providing value-conscious customers across the mid- and lower-income segments with a range of affordable and feature-relevant localized products, such as refrigerators, washing machines, and television sets.²⁴ This strategy helped LG gain profitability through high production volumes, even though the white-goods and consumer-electronics markets in India offered wafer-thin margins. In 2007, LG took its localization strategy even further by investing in local R&D to develop products later called "Stars of India."²⁵ Today, LG exports from India to other countries and is considering India as an "export hub."²⁶

Perhaps the most ambitious example of a multinational using India as a base to launch a global value-chain strategy is Renault-Nissan's Kwid project.²⁷ The brainchild of Carlos Ghosn, at the time the chairman and CEO of both Renault and Nissan, the Kwid has its roots in a world car idea that was generated in 2008-09 and got the green light in 2010, with its initial launch in India in 2015. The Kwid was developed based on initial drawings done at Renault's design studio in Mumbai in 2011, successively refined by teams in France and Japan. The strategic goal was to produce a car in the \$4,000 range that could

TWELVE PRACTICES FOR A MAKE-IN-INDIA STRATEGY

Some multinational companies have experienced success in India by catering to all income segments with global and local designs and using India as a hub for penetrating frontier markets in other regions, such as Africa and Southeast Asia.

SEGMENT

HIGHER INCOME	1. Partner with network orchestrators to gain access to this market.
	2. Establish production facilities or partner with contract manufacturers for local production of global products.
	3. Start sourcing locally to penetrate into upper end of middle-income segment.
MIDDLE INCOME	4. Partner with network orchestrators to gain access to this market, too.
	5. Establish production facilities for product customization to compete in this segment.
	6. Collaborate with local subsystem suppliers to become cost-competitive.
LOWER INCOME	7. Partner horizontally and vertically for significant local sourcing.
	8. Develop distribution and service network to reach rural consumers.
	9. Build customized products to gain substantial market share in this segment.
REGIONAL/ GLOBAL MARKETS	10. Explore India as a sourcing hub for global markets.
	11. Use India as an engineering services hub for global markets.
	12. Use India as a test bed for innovation, and introduce products developed for India to regional and global markets.

dominate the large middle-income segment and also be an important product in Renault's global frontier markets, specifically the rest of Asia, Africa, and Latin America. Ghosn noted, "This car will be a game changer for Renault in India. It will be a big contributor to our India growth story first, secondly in other emerging markets, and then globally."²⁸

Only a few months after launch, the Kwid managed to grab 10% of the market share in the entry hatchback segment in India, generating a 144% volume growth for Renault India.²⁹ By fall 2016, Kwid was accounting for nearly 80% of Renault's sales in India.

Once foreign multinationals succeed in developing products for the middle- and lower-income segments in India, they then have the foundation to rapidly enter other emerging markets in Asia, Latin America, Africa, and the Middle East. Given the complexity of the Indian market and its demanding customers, success in India is likely to lead to success elsewhere. Today, a range of products originally developed for India are being exported not just to other emerging markets but also to markets in mature economies. General Electric Co. and Koninklijke Philips NV, which have a history of developing products in India at low cost, have successfully marketed products designed and made in India to Europe and the U.S. GE, for example, developed an electrocardiography machine for rural clinics in India at a price point of \$1,000, which is now being sold worldwide, including in the U.S.³⁰ Consequently, GE has set up

three manufacturing facilities in Bangalore to manufacture a variety of diagnostic devices for markets in Europe, Latin America, Africa, and Asia.³¹

In conjunction with India's education system, faster deregulation, and other reforms, the Indian government's "Make in India" policies could translate into greater productivity and faster economic growth for the country. While not understating the challenges of manufacturing in India, it is important to underline the fact that fundamental resource elements are in place in its business environment. Whereas Dominic Barton, the global managing partner of McKinsey & Co., was at one point not advising companies to invest in India, by 2014 he had reversed that position, prompted by changes in the business environment. "If you look at the trends that are going on in the world, India is right in the center," he said.³² We have developed a list of 12 practices, sorted by market segments, for helping executives to put a successful India strategy into action. (See "Twelve Practices for a Make-in-India Strategy.") What is necessary is a strategic vision to see the possibilities, along with a comprehensive implementation plan to weave all value-chain elements together.

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REFERENCES

1. A.T. Kearney and the Council of Supply Chain Management Professionals, India, "Supply Chain 2025: Trends and Implications for India," April 2014, www.atkearney.com.
2. Apple began manufacturing a limited number of iPhones in India in 2017. See T. Haselton, "Apple Begins Manufacturing iPhone SE in India," May 17, 2017, www.cnn.com.
3. "About Us," n.d., www.makeinindia.com.
4. M. Blomström and F. Sjöholm, "Technology Transfer and Spillovers: Does Local Participation With Multinationals Matter?" *European Economic Review* 43, no. 4-6 (April 1999): 915-923.
5. A. Schotter and M. Teagarden, "Protecting Intellectual Property in China," *MIT Sloan Management Review* 55, no. 4 (summer 2014): 41-48.
6. A.Y. Lewin, S. Massini, and C. Peeters, "Why Are Companies Offshoring Innovation? The Emerging Global Race for Talent," *Journal of International Business Studies* 40, no. 6 (2009): 901-925.
7. M. Goyal, "Foxconn Boost for 'Make in India': Why Taiwan Inc.'s Growing Interests in India Deserve Attention," *Economic Times*, Aug. 24, 2015.
8. R. Venkatesan, "Conquering the Chaos: Win in India, Win Everywhere" (Boston: Harvard Business Publishing, 2013).
9. J. Bhattacharya and S. Unnikrishnan, "The Great Indian Middle Class: The Promise and the Reality," March 14, 2016, www.livemint.com.
10. S. Agarwal, "India Is Not Yet on the Priority List of the Luxury Companies: Abheek Singhi," Nov. 1, 2014, www.livemint.com.
11. KPMG and ASSOCHAM India, "India Luxury Summit 2014," New Delhi, India, Feb. 7, 2014.
12. V.K. Fung, W.K. Fung, and Y.R. Wind, "Competing in a Flat World: Building Enterprises for a Borderless World" (Upper Saddle River, New Jersey: Wharton School Publishing, 2008).
13. S.L. Hart and C.M. Christensen, "The Great Leap: Driving Innovation From the Base of the Pyramid," *MIT Sloan Management Review* 44, no. 1 (fall 2002): 51-56.
14. J. Hagel III and J.S. Brown, "The Only Sustainable Edge: Why Business Strategy Depends on Productive Friction and Dynamic Specialization" (Boston: Harvard Business School Publishing, 2005).
15. A. Kazmin, "Modi Tackles India's 'Licence Raj' With a Thousand Cuts," *Financial Times*, Sept. 21, 2014.
16. R.T. Krishnan, "Innovation in the Indian Automotive Industry: Role of Academic and Public Research Institutions" in "A Comparative Study on the Role of University and PRI as External Resources for Firms' Innovation," eds. A. Sunami and P. Intarakumnerd, *Economic Research Institute for ASEAN and East Asia report 2010-10* (Jakarta, Indonesia: ERIA, 2011), 57-109.
17. P. Mehra and S. Ghosh, "Lost Opportunity: How Apple Got Its Strategy Wrong," Nov. 12, 2008, www.livemint.com.
18. M. Lorenzen and R. Mudambi, "Clusters, Connectivity, and Catch-Up: Bollywood and Bangalore in the Global Economy," *Journal of Economic Geography* 13, no. 3 (May 2013): 501-534.
19. J. McGregor, "China's Drive for 'Indigenous Innovation': A Web of Industrial Policies," July 10, 2010, www.uschamber.com.
20. T. Sahoo, D.K. Banwet, and K. Momaya, "Strategic Technology Management in the Auto Component Industry in India," *Journal of Advances in Management Research* 8, no.1 (2011): 9-29.
21. A. Kumaraswamy, R. Mudambi, H. Saranga, and A. Tripathy, "Catch-Up Strategies in the Indian Auto Components Industry: Domestic Firms' Responses to Market Liberalization," *Journal of International Business Studies* 43, no. 4 (May 2012): 368-395.
22. K. Thakkar, "Iconic Cars Like Volkswagen Beetle and Fiat 500 Unable to Connect Beyond Their Die-Hard Fans, Forcing Makers to Pull Them Out," *Economic Times*, Oct. 1, 2013.
23. K. Ramaswamy, "LG Electronics: Global Strategy in Emerging Markets," Thunderbird School of Global Management case no. A09-070008 (Glendale, Arizona: Thunderbird School of Global Management, 2007).
24. P.R. Sinha, "Premium Marketing to the Masses: An Interview With LG Electronics India's Managing Director," 2005, www.mckinsey.com.
25. "LG India Presents the 'Stars of India,'" news release, *Business Standard*, April 28, 2009.
26. PTI, "LG Plans to Make India Export Hub," *Economic Times*, April 18, 2017, economictimes.indiatimes.com.
27. C. Midler, B. Jullien, and Y. Lung, "Innover à l'envers: Repenser la stratégie et la conception dans un monde frugal" (Malakoff, France: Dunod, 2017), available in English as "Rethinking Innovation and Design for Emerging Markets: Inside the Renault Kwid Project" (Boca Raton, Florida: Auerbach Publications, 2017).
28. "Renault Kwid Compact Hatchback Unveiled; To Take on Alto & Eon in Rs 3-4 Lakh Price Range," *Economic Times*, May 20, 2015, economictimes.indiatimes.com.
29. "Renault India Registers 144% Growth in November," Dec. 1, 2015, auto.ndtv.com.
30. J.R. Immelt, V. Govindarajan, and C. Trimble, "How GE Is Disrupting Itself," *Harvard Business Review* 87, no. 10 (October 2009): 56-65.
31. N. Abraham, "GE Healthcare to Make India Hub for Low-Cost Devices; Products Will Be Up to 40% Cheaper," *Economic Times*, Nov. 6, 2013.
32. V. Mahanta and S. Dave, "Narendra Modi Has Turned India Into a Magnet: McKinsey CEO Dominic Barton," *Economic Times*, Nov. 26, 2014.

Reprint 58410.

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