

Medical Device Growth In Emerging Markets: Lessons From Other Industries

Device companies are trying to figure out successful formulas to sell in emerging markets. Instead of reinventing the wheel, here are several approaches that have worked well in other industries.

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- Emerging markets continue to be a hot topic in the device industry, particularly for large and mid-sized companies.
- There are lessons device companies can learn from other industries that have successfully navigated the emerging markets landscape.
- One important lesson: the majority of emerging market growth is in the mid-tier so MNCs must be willing to adopt methods of local competitors and adjust end-to-end business models.
- Companies should also look to establish local leadership and tailor new products with local R&D.
- Emerging markets also may require changes in distribution strategy, moving from hands-off management to a proactive hybrid model.

Emerging markets are widely recognized as one of the most important growth frontiers for medical devices. However, multinational players are still trying to unravel the nature of each market and the exact winning formula for success. To date, most multinational companies (MNCs) have focused on the premium customer segment with pre-existing products and commercial models, but we believe the next wave of growth will be in the largely untapped mid-tier of these markets. Emerging markets are experiencing a rise of their middle class, increased access to care and new feature versus price trade-offs that will require rethinking existing strategies and business models.

Many other industries underwent a similar globalization process a decade ago and essentially reinvented their approaches for the mid-tier of fast-growing economies. We believe medical device MNCs can leverage many components of these strategies. Although each industry has unique dynamics and none are perfect parallels, we have focused on the similarities where we believe significant lessons can be learned.

LESSONS FROM OTHER INDUSTRIES

Trends In The Evolution Of Competition

Ten years ago, the chemical, infrastructure, high-tech, auto and electronics industries all experienced a three-phased pattern in emerging markets similar to what medical device MNCs are currently witnessing. This type of evolution is often seen in China first but has also been observed in other emerging markets like Brazil, Russia and India. (See Exhibit 1.)

PHASE 1: MNCs Establish The Market

MNCs enter and introduce new, innovative technologies of unparalleled quality and cost. These premium offerings often are new to the country, but it is likely that the products were developed previously for the US and/or EU (e.g., Airbus/Boeing, BMW) and are rarely customized to local needs.

PHASE 2:

Locals Enter And Develop New Business Models

Locals recognize the demand for mid-tier versions of these premium products and reverse engineer a new generation of similar products with “good enough” quality, tailored features, locally sourced supply chains and significantly lower priced manufacturing. As part of this process, the most successful locals create innovative business models to design, build and deliver their products. They employ:

- Local market insights to design and target products that meet or exceed micro-segment needs;
- Rapid product development cycles (measured in months, not years) and are willing to make small, quick customizations for key customers;
- Channel proliferation with much less sensitivity to multiple dealers and “channel conflict” than their US or EU counterparts;

- Lower labor costs to inundate the market with sales reps and service technicians while also offering faster advancement to the highest performers; and
- Extensive government relationships between top executives and local and provincial decision makers to ensure a “seat at the table” in policy changes.

Local products often have advanced features at an affordable price point, thereby generating significant demand and growth in the mid-tier market. This dynamic can transform the market’s shape (see Exhibit 2), fuelling more sophisticated locals while pushing some MNCs into the niche, ultra-premium segment. MNCs that want to succeed must rapidly develop their own localized offerings and go-to-market models.

Observations Of How Leading Locals Innovate On MNC Business Models

Leading local competitors have successfully challenged MNCs in other industries by differentiating their business model across many dimensions. Some of the most important are discussed below.

R&D – Creating Successful Local Products

Local competitors initially focus on simply reverse engineering MNC products. However, this can quickly shift to designing low-cost alternatives that are more targeted to local customer needs. Locals can employ significantly larger R&D teams, rapid turnarounds and iterations on new products giving them a “fast trial and error” approach. All of these elements can give locals a less expensive and more productive R&D engine than MNC competitors.

Manufacturing – Local Sourcing And Keeping Production Costs Down

Locals often use nearly 100% local sourcing with high levels of vertical integration and production facilities in low-cost tier 2/3 cities – both of which provide an incredibly low-cost base compared with MNCs. In addition, many locally designed products can be built with locally available components, which further drives down costs (whereas many MNCs’ existing product specifications prohibit them from fully adapting this more flexible, low-cost approach).

Sales Force – Size And Use Of Variable Incentives

Local competitors often employ a direct sales force that is five to 10 times the size of an MNC’s direct sales force, with much lower labor costs and a radically different compensation approach. Because local players often put a strong emphasis on variable pay and performance, and incorporate P&L for their highest performers, they can also develop a very different performance culture.

It is not uncommon for local companies to initially pay new reps 30% of what their MNC peers earn. However, the highest performers receive rapid increases in both base and variable compensation; within three years, they can earn as much as their MNC peers, and significantly more after five to six years. At the same time, an experienced low performer would still make 30% of what their MNC peer makes, producing a far more dramatic spread in compensation. At the same time, an experienced low-performer would still make 30% of what their MNC peers make, producing a far more dramatic spread in compensation.

Distribution – Capitalizing On Complex Networks

Locals often utilize many different distributors, often with highly overlapping and competitive territories. They tend to have a

Exhibit 1

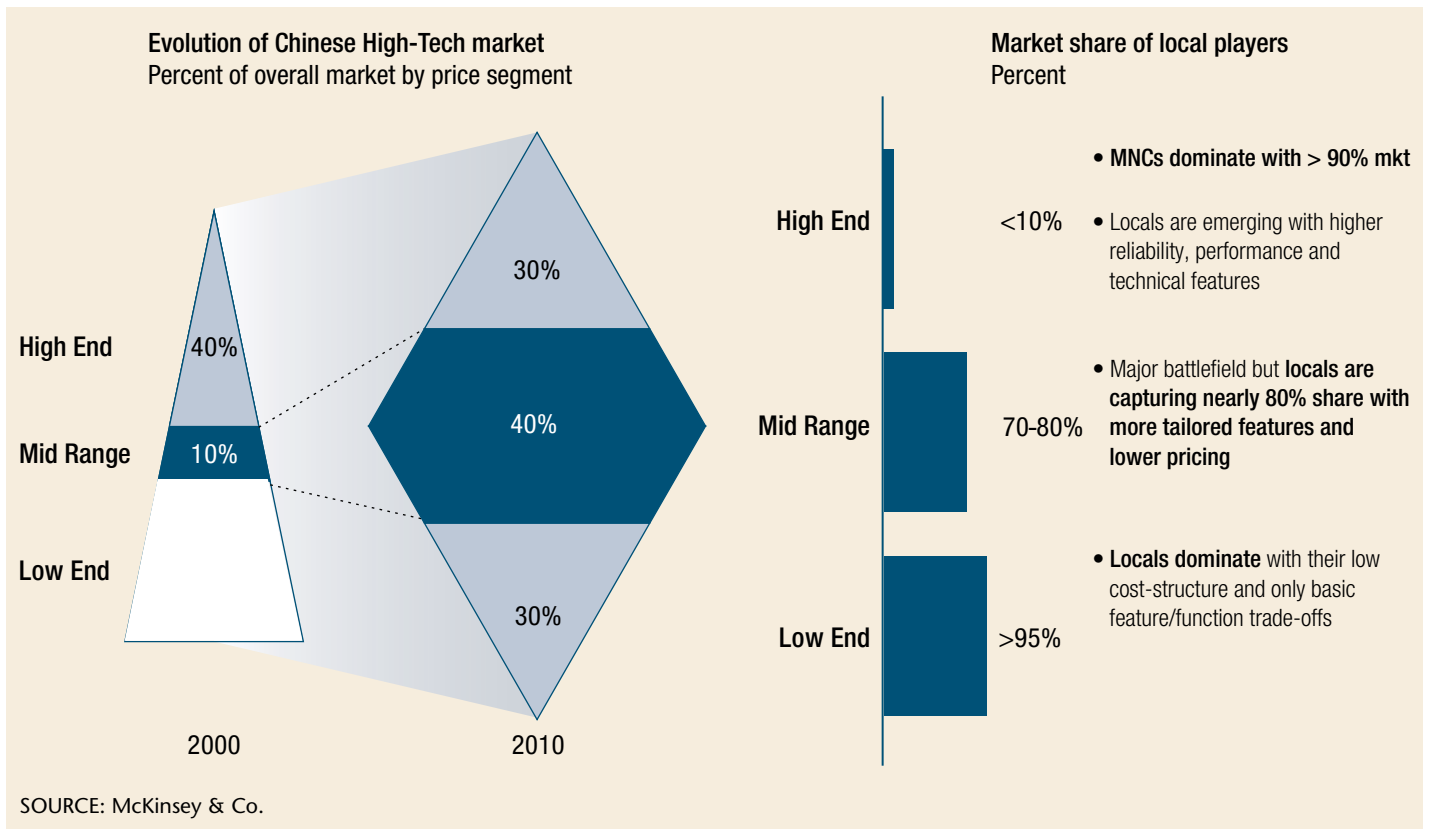
Industrial And High-Tech Players Have Historically Experienced Three Phases Of Competition In Emerging Markets

MNCs Establish And Dominate The Market	Locals Learn And Take Over	Local And MNC Winners Emerge & Leverage Experience To Strengthen Globally
» MNCs create and dominate market by importing high quality/high cost products not available locally » Usually a few pre-existing locals with much lower price points that aren’t directly competitive	» Local players see opportunity and quickly reverse engineer MNCs’ product to be “just good enough” or often, more tailored to local needs » Aggressively expand distribution depth and breadth » Hire 5-10X local sales and service forces of an MNC	» Long-term winners achieve significant local scale and cost advantages that they leverage to expand globally » Most successful players (locals or MNCs) strengthen their global leadership positions by exporting parts of their emerging market end-to-end business model to other competitive regions
1	2	3
PHASE I – MNCs create the market	PHASE II – Locals learn and take over	PHASE III – Fittest survivors become stronger globally

SOURCE: McKinsey & Co.

Exhibit 2

In The Last 10 Years, The Chinese High-Tech Market Has Changed “Shape” With A Large Mid-Range Dominated By Locals



higher tolerance for “channel conflict” than their MNC peers, with greater reliance on small and medium-sized regional distributors as part of a “messy patchwork” to quickly reach much wider coverage (even to rural areas) while also achieving deeper penetration into potential accounts. Many MNCs (especially if smaller) get trapped into exclusive distribution relationships that produce mediocre results and limit the ability of the MNC to get a truly deep, transparent understanding of customers, competition and market dynamics.

Service – Creating Product Benefits And Loyalty

Similar to the sales force, it is common for successful local players to have a substantially larger number of service engineers than MNCs; often, locals’ coverage is effectively national (not just clustered in the largest cities). In certain product segments local players have placed a service engineer in nearly every location where they sell a product; this person has ready access to spare parts and creates a situation for the customer in which service is available 24/7. This can make the difference between a customer getting parts within hours (or a “loaner” if it takes longer) and potentially experiencing weeks of delay with an MNC. As an additional benefit, the service engineers provide valuable account insights such as timing for the next potential order, shifts in local patient volumes and where competitors are offering discounts.

Such an approach not only creates customer loyalty, it increases the perceived product quality and durability standards: while the MNC product may be engineered to last 20 years

and the equivalent mid-tier local offering only lasts 10 years, the lower cost with immediate service and parts may make the local product much more competitive.

PHASE 3:

Winners Adopt The Best Of Both

Sustained competition results in survival of the fittest with the strongest local or MNC players combining premium and mid-tier approaches to emerge on top.

Companies such as Honeywell, Nokia and Procter & Gamble Co. as well as Chinese locals such as Lenovo, Bao Steel, Huawei and Mindray Medical International Ltd. have experienced all three phases of competition and are each stronger globally from the lessons learned in emerging markets: more productive R&D, streamlined sourcing and manufacturing efficiencies, reinvented value proposition, and tailored go-to-market model across distribution, sales and service.

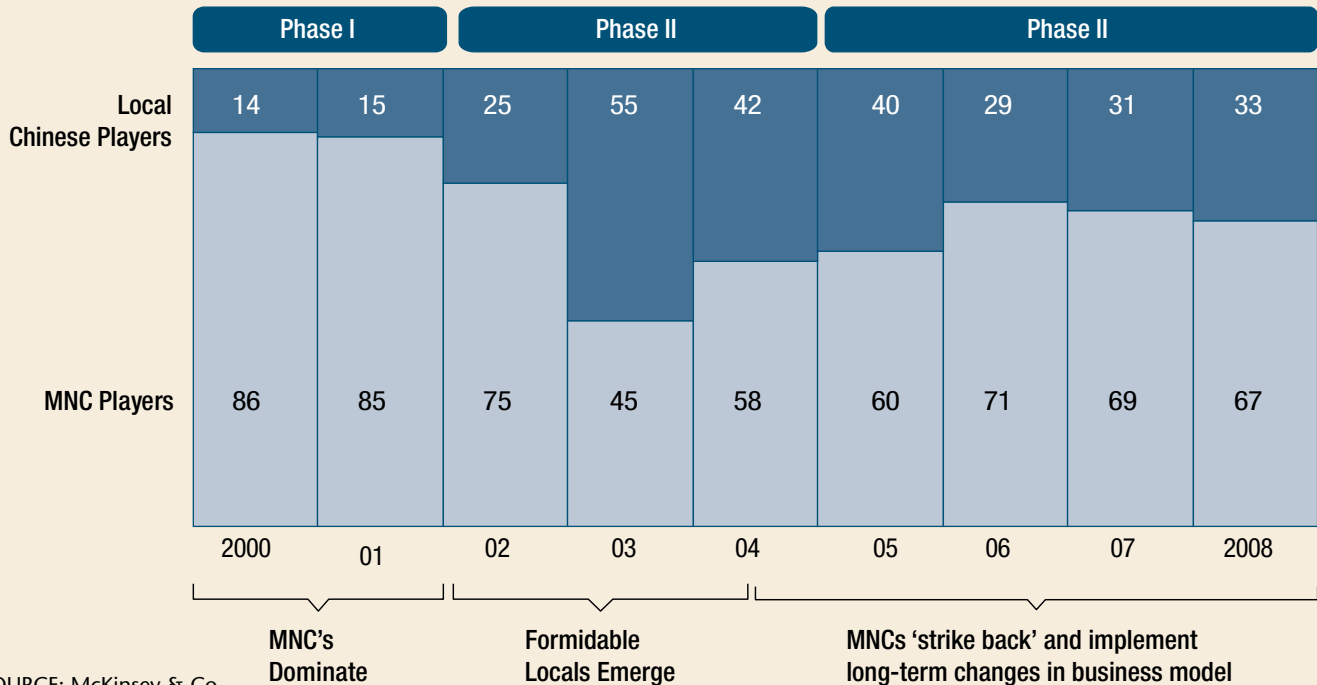
How MNCs Have Responded To Local Competition To Regain Leadership

Many leading MNCs have successfully responded to this threat, including Nokia, John Deere, Siemens AG, Royal Philips Electronics NV, ABB and Tyco Electronics Corp. (part of Tyco International Ltd.). These players have successfully transitioned from Phase 1 MNCs that were focused on the premium segment to Phase 3 market leaders in both the mid-tier and premium segments. Each of these companies has been committed to strengthening and

Exhibit 3

China's Mobile Phone Market Demonstrates All Three Phases Of Globalized Competition With The Most Successful MNCs And Locals Re-Emerged On Top

Evolution of Chinese mobile phone market
Percentage of mobile phone market share



SOURCE: McKinsey & Co.

growing their positions in the face of increasingly aggressive local competition. For example, the domestic Chinese market accounts for 5 to 15% of each company's global revenues and over 10% of each one's global employees live in China.

Witness the evolution of the Chinese mobile phone market that was once 85% MNC dominated before the MNC share dropped to as low as 45% (during the peak of Phase 2 strength for locals). Concerted efforts in Phase 3 allowed MNCs to reach 70% overall share. (See Exhibit 3.)

The keys to success for these leading MNCs included the development of local leadership and the tailoring of products to meet local mid-tier needs as described in case studies below:

Establishing Local Leadership

ABB, headquartered in Zurich, Switzerland, recognized early on that it could not build local relationships and deeply understand Chinese customers from Zurich. To establish its presence in China, the company hired local leadership and appointed a "China CEO." It invested over \$1 billion in local facilities, including 38 sales offices (all in major Chinese cities), 23 JV/WOFE (joint venture/wholly owned foreign enterprise) manufacturing facilities and two R&D centers. ABB encourages a strong entrepreneurial culture in its Chinese locations and has worked extremely hard to strengthen local government relations. These investments have paid off as its domestic Chinese revenues have grown with 16%+ CAGR from 2005 to 2010; the company ultimately plans for 90% of its Chinese sales to be locally sourced and produced.

Tailoring New Products With Local R&D

A number of leading MNCs have leveraged their local presence to design tailored low-cost products that meet or exceed the needs of mid-tier customers. Key examples include:

Siemens, based in Munich, Germany, established its China Research Center in 2002. It now serves as the company's Asia Pacific R&D center, focusing on SMART (Simple, Maintenance-friendly, Affordable, Reliable, and Timely-to-market) product designs. Using its 10 R&D cooperation agreements with leading local universities, Siemens has beaten competitors on both relevance and cost-to-market.

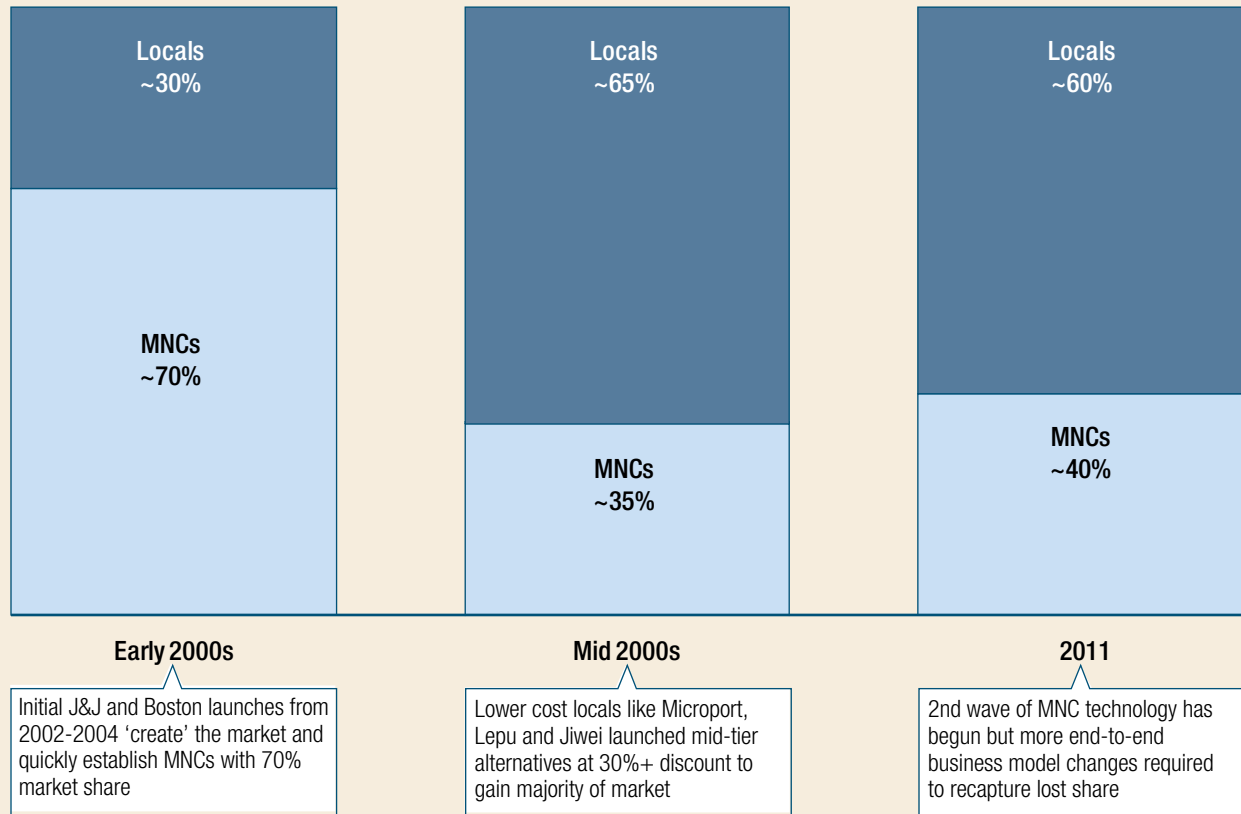
- Siemens' Somatom Emotion 16 CT scanner, designed and produced entirely in China, is now the market-leading CT scanner with over 80% of its components sourced locally.
- The locally designed and sourced S 700 K-C Point Machine for railroads has a 45% local market share and is produced at 35% less cost than prior models.
- Siemens also leveraged local R&D to redesign existing products that were not performing well. One example is an industrial lighting panel that had 4% share and a price point 35% higher than local competitors; the new version, updated with a fully local supply chain and production, has 15 times the sales of the original. The company achieved local product pricing while preserving traditional Siemens margins.

John Deere, based in Illinois in the US, has always been a well-known brand name among Chinese farmers; however,

Exhibit 4

MNCs Created China's Premium Stent Market In Early 2000s, However Lower Cost Locals Have Since Captured Majority Of Share With Mid-Tier Offerings

Chinese coronary stent market evolution
Approximate revenue market share



SOURCE: McKinsey & Co.

as late as 2000, the company had limited tractor sales in that country. The company was importing an ~\$25K–\$30K model that was popular in the US and EU “as is” into China. John Deere decided to completely redesign its approach with local input and, subsequently, launched its most successful Chinese tractor. The new design, at a price of under \$10K, swapped a model with an imported engine, hydraulic four-wheel drive, automotive transmission, 24 gears, air-suspended seats and GPS, for one with a locally sourced engine, two-wheel drive and a manual transmission. These changes dramatically reduced cost, complexity and maintenance. Launched in 2001, the new tractor accounted for ~50% of total sales in China within its first year and is still a leading player in the segment.

Nokia underwent a similar transition when it stopped importing existing phones and designed tailored mid-tier products based on local customer input. The company had local manufacturing since 1995 and opened its first R&D center in 1998 (it has eight local R&D centers now). After extensive customer research, the company launched Nokia 6108 in 2003. This was the first handset in the world designed for Chinese handwriting input and it quickly became a top-10 best-selling product. In 2004 the company launched a mid-tier flip phone designed specifically for China, further establishing Nokia as the most

successful foreign phone brand at the time. Today, Nokia has extended the concept of local product tailoring in India by creating Nokia Money, a mobile payments system for the 600 million customers without formal banking ties. The company has also developed Nokia Life Tools in India to target the 60% of the country's workforce involved in agriculture by delivering weather, crop, seed and fertilizer market prices by text message for the equivalent of \$1.20 a month.

By reconsidering end-to-end business models, focusing on local leadership and developing tailored mid-tier focused products in addition to their existing premium offerings, each of these players has emerged stronger in both the premium and mid-tier markets.

EXPECTED EVOLUTION OF MEDICAL DEVICES IN EMERGING MARKETS

Medical devices in emerging economies are going through rapid growth and change, similar to the other industries we just examined. Although developed markets dominate medical device sales today (US, EU and Japan account for over 75% of total sales), emerging markets represent much faster growth opportunities with growth rates two to five times those of developed markets. Historically, three key barriers have limited medical device penetration in emerging markets:

- **Affordability** – significantly lower GDP per capita and limited penetration of private or public insurance;
- **Access** – constrained medical infrastructure presence beyond top-tier cities (even more important for medical devices than pharmaceuticals); and
- **Acceptability** – among both patients and physicians due to limited awareness, training and understanding of the cost-benefit of devices over pharmaceutical or traditional therapies.

However the situation is steadily transforming and growth will continue to accelerate due to:

- **Demographics** – a growing and aging population is driving higher disease prevalence and the need for associated medical devices. For example, the patient pool for congestive heart disease in India is expected to go from ~45 million patients in 2010 to ~60 million patients by 2015. The potential in that growth is enormous, especially when we consider that only 3% of patients diagnosed with acute coronary syndrome (ACS) today receive a PCI/angioplasty.
- **Rising income and availability of insurance** – for example, the Chinese middle class is expected to account for 75% of Chinese urban households by 2020, up from 25% today. Over 90% of the Chinese population already has some form of insurance, up from 45% in 2006. Similarly, the insurance market in India is rapidly growing, with 45% of India's population expected to have some form of insurance by 2020, up from ~25% today.
- **Improving medical infrastructure** – hospitals and other medical facilities are making significant investments in medical infrastructure across all tiers of cities. For example, an incremental RMB 15 to 20 billion was spent on medical equipment in mid- to lower-tier cities in China from 2009 to 2011.
- **Increasing consumer demand** – more emerging markets consumers are seeking higher-quality care and are willing to pay for it. Recent McKinsey research of Brazil's emerging middle class shows that over 50% of the population want to spend a greater portion of their new income on health care (rather than housing, food, clothing and transport).

Although not all medical product categories will have an abundance of immediately established access, acceptability and affordability, the pendulum is swinging and in many cases greater opportunity exists than is often realized. Many medical device product categories are still in Phase 1 of their evolution, with some moving to Phase 2 and fewer yet in Phase 3 (*see Exhibit 1*). As the following case studies illustrate, the battle for the mid-tier has already begun in several markets.

Chinese Vascular And Ultrasound Markets

Medtronic Inc., Boston Scientific Corp., Johnson & Johnson and Abbott Laboratories Inc. historically dominated the premium segment in China's vascular market. They had ~70% market share in the early 2000s. However, in the mid-2000s, local players such as **MicroPort Scientific Corp., Lepu Medical Technology (Beijing) Co. Ltd.** and **Jewei** entered the fray; today, they command ~60% of the overall market. This massive shift in share occurred because locals created products that were perceived as "good enough" not only for the mid-tier but also for the premium segment.

When the locals entered, competition intensified dramatically. As local players such as Lepu and MicroPort decreased the

perceived efficacy and safety differences between their products and those of the MNCs – while maintaining a lower price – they were able move into the premium segment and further erode MNCs' share and price. Although the MNCs are starting to recapture some of the premium segment with a second wave of advanced MNC products, locals still maintain a strong lead in the mid-tier and value segments. (*See Exhibit 4.*)

Mindray used a similar approach to capture 40% of the color ultrasound market in China. Its DC ultrasound series offers simple 8- to 12-inch color displays with basic features for arrhythmia analysis and pacemaker detection, but none of the more advanced networked monitoring or on-the-spot analysis offered by the more expensive products of MNC counterparts **General Electric Co.** and **Philips** targeting the premium segment.

Brazilian Hospital Bed Market

In Brazil, leading MNC hospital bed and stretcher manufacturers **Hill-Rom Co. Inc.** and **Stryker Corp.** have high-tech, complex beds with multiple positions and advanced surfaces to prevent bed sores or pressure ulcers, at a cost of many thousands of dollars per bed. While they have many advanced valuable features, they can also be more expensive to maintain and larger in size, which makes them more cumbersome to navigate in the small rooms and narrow hallways often found in older Brazilian hospitals. Products of local competitors such as **Mercedes IMEC, Hospimetal** and **D'Aquino**, which traditionally made inexpensive and simple manually operated metal bed frames (less than \$2,000 each), have been moving up in quality. These companies recognized Brazilian hospitals - especially the older hospitals and mid-tier segment - often have limited space but plenty of inexpensive nursing labor, so electronic adjustments to minimize time moving patients up and down are not valued as much as narrower dimensions and wheel configurations that make tight turns and storage easier. This market insight has allowed them to develop new lines of products that are increasing their ability to compete with MNCs. While the recent sharp rise in the value of the Brazilian real has impacted the cost position of local players, we expect to see greater competition in the years ahead.

Indian Orthopedic Market

The Indian orthopedic implants market is experiencing similar trends. For instance, locals like **Baimtec** and **Chunli** are offering increasingly advanced titanium, cobalt and chrome products. As a result, they are now challenging MNCs that are left to compete in the premium market, which only accounts for ~40 to 50% of total spend. In joint reconstruction the market was historically dominated by MNCs such as **J&J's DePuy Inc., Stryker** and **Smith & Nephew PLC**. However, multiple local players such as **Indus** and **INOR** are now aggressively attacking the market with "good enough" products at competitive price points, forcing the MNCs to rethink their price-value propositions.

How Medical Device Companies Can Respond: Seven Imperatives That Can Accelerate Growth

We believe medical device companies can get ahead by applying the lessons from other industries examined earlier. With most medical device sectors still in Phase 1 or early Phase 2, MNCs

have time to act before strong local competitors emerge and the mid-tier battle is lost.

Our experience indicates a two-pronged strategy is required for success in most emerging markets. This approach demands that a company proactively develop the mid-tier business while maintaining its strong performance in the premium segment. Achieving this will be difficult, but it is absolutely necessary for long-term leadership and growth.

Some executives may ask, why change anything when our emerging markets business is growing significantly faster than our domestic markets? or “What about the risk of cannibalizing our existing business by shifting resources toward the mid-tier?” While these are valid risks, inaction in other industries has not been a path to success and has only left companies further behind.

Although each emerging market is unique and will require customization of the business model to meet local requirements, we believe successful medical device companies and their general managers will need to excel in seven areas to sustain long-term growth. (See Exhibit 5.)

The seven imperatives each MNC must address include:

- Tailoring the product portfolios to emerging market needs;
- Moving from hands-off distributor management to a proactive hybrid model;
- Leveraging service as a differentiator;
- Driving penetration by helping develop treatment protocols and influencing patient funnels;
- Leveraging partnerships and acquisitions to enhance reach and relevance;
- Winning the local war for talent; and
- Adopting an emerging-market mind-set with a reasonable investment horizon to avoid the “mid-way” profitability trap.

Tailoring The Product Portfolios To Emerging Market Needs

The most successful approaches to local tailoring fall into three categories: ground up redesign (i.e., not just a de-featured version of an existing product); same design at a significantly lower price based on local sourcing and manufacturing; and careful life-cycle management of existing products to tier and price them according to premium versus mid-tier needs.

- GE established three Chinese R&D centers (Shanghai, Beijing, Wuxi) and a new Chengdu Innovation Center to develop, exhibit and market “In China, for China and the world” products. It has already launched tailored innovation in the EKG, ultrasound, MRI and infant warmer markets and has plans for 40 new products in the next three years.
- J&J’s new Innovation Center in Suzhuo, China, develops products for emerging countries across all seven J&J device franchises (Cordis Corp., DePuy, Ethicon Inc., Ethicon Endo-Surgery Inc., LifeScan Inc., Ortho-Clinical Diagnostics Inc. and Johnson & Johnson Vision Care Inc.). The company launched several mid-tier products including the linear cutter (Advant 55) with a reusable body and reloadable staple, Synsyl absorbable sutures manufactured in India and DePuy’s REACH knee design with fewer components to decrease cost and make it easier for surgeons to implant.

- Covidien PLC recently announced an increase in its Shanghai R&D facility from 25 researchers to more than 300 and a focus on tailored products for emerging markets.

Moving From Hands-Off Distributor Management To A Proactive Hybrid Model

Many device manufacturers have allowed one or a few local distributors to build customer relationships and navigate regulatory complexities rather than build their own direct sales force. The use of this “hands-off” approach varies by the size of the company, country and product segment, but it is now costing many MNCs much needed insights into key areas such as market and customer dynamics, end-user pricing, distributor margins and even where products are ultimately being sold and used.

Numerous executives realize this, but struggle with the real-world challenges of changing the model without suffering a near-term hit to performance. Moving to a more proactive model with a direct sales force and greater transparency involves resetting relationships and expectations with distribution partners – a highly messy but critical process. Each situation will have its own circumstances, but several issues should be considered:

- Gaining market insights – MNCs need transparent account-level intelligence to understand where products are sold and for what price. Distributors are often reluctant to share these data, feeling they own this information as part of the underlying relationship. Navigating this shift in a way that can be mutually beneficial must be done with a gentle but firm and consistent approach.
- Several players have succeeded in this transition by providing access to additional products, additional investment in local marketing and promotional spend, or by offering greater market analytics support to signal a long-term commitment to the relationship. Companies that made this transition have also insisted on at least monthly data feeds, which can be a significant change from the napkin or Excel-based tracking that the distributor was used to. It is not uncommon for this transition to require an investment in FTEs or infrastructure, and the MNC should assign a person as a single point of contact to track data and analyze trends. Finally, companies that have been most successful worked with their distributors to identify underpenetrated accounts or opportunities to improve pricing, or to target accounts for promotions, as a few quick wins helped gain the distributor’s buy-in and trust.
- Reassessing channel structure – once MNCs have a better understanding of local dynamics, pricing and market share, they often ask whether their channel structure is right. They struggle with such questions as, “Is my current distributor the right one?”; “Are just one or two distributors enough?” or “Do I need to build my own sales force?” Navigating these issues is difficult, but the best-performing medical device companies have become more comfortable with a greater degree of “channel conflict” than in the past. In many situations, some degree of a direct sales overlay can be important, especially if the company needs to develop the market.
- Often, a natural point to initiate discussions is during account planning for the next quarter or year where an MNC can take a more active role in developing territory and account-level targets. Increasing the rigor of this process alone reveals significant gaps in current strategy as well as a more nuanced understanding of distributor performance. It is sometimes too

Exhibit 5

Seven Imperatives Can Help Accelerate Growth Rates And Capture The Critical Mid-Tier Of Emerging Markets



- 1** • Move from a “hands off” distributor led approach to actively building local insight, presence, and service
 - Successful GTM model will benefit both premium and mid-tier segments and should be simple enough to implement, but also differentiated enough to “look and feel” different to traditional approaches
- 2** • Establish a separate service infrastructure to drive relationships and local market insights
- 3** • Invest to attract and retain top talent as scarcity and competition for local capabilities are on the rise
- 4** • Opportunistically leverage partnerships/ acquisitions to enhance portfolio, reach and relevance while recognizing local challenges
- 5** • Be the leader in increasing device penetration by helping develop treatment protocols and influencing patient funnels
- 6** • Define target features & cost, and design to these parameters only
 - Meet mid-tier segment needs with as much (if not more) innovation, especially with increasingly aggressive local competitors
 - Recognize speed is as important as the level of new differentiation
- 7** • Adopt an emerging market mindset

SOURCE: McKinsey & Co.

disruptive to “swap” or “add” distributors or direct sales people if the MNC has traditionally been hands off. Setting forward-looking targets that if not met will result in loss of “exclusivity” can be one approach that is perceived as fair for all parties.

Leveraging Service As A Differentiator

Establishing a strong local service infrastructure, separate from sales representatives, is a powerful tool in emerging markets. Multiple companies have demonstrated that service engineers can act as independent sources of market intelligence and often have more frequent and stronger relationships with end users than the sales force. For instance, GE formed an innovative private-public partnership with several Indian state governments

to service diagnostic imaging facilities equipped with GE equipment in public hospitals operated by private third parties but designed to serve mid-tier and lower-income needs.

Although the nature of the service offering (e.g., break-fix, on-site repair, parts, loaners) and its delivery (e.g., in-house vs. outsourced) will vary, all MNCs should consider service an important facet of their growth strategy in emerging markets.

Driving Penetration By Helping Develop Treatment Protocols Or Influencing Patient Funnels

MNCs will frequently design programs to influence treatment approaches in home markets, but this has been underutilized in emerging markets where early movers can quickly establish

loyalty across the patient/physician community. Several examples include:

- J&J's DePuy opened a 30,000-square-foot Advanced Education and Research Center in Chennai, India, as a hub for physician education training; the company has already trained over 500 surgeons since 2008. J&J also partnered with several large hospitals to develop training laboratories within the hospitals themselves. This strategy helped achieve a 35% share in India's joint implant segment.
- Covidien offers specific training courses across China and has developed a local KOL network to demonstrate product use and deliver the training.
- Medtronic and GE have focused on partnering with physician associations (e.g., branches of the China Medical Association) and provincial governments to drive awareness and training programs.

Leveraging Partnerships And Acquisitions To Enhance Reach And Relevance

Most MNCs in emerging markets need to increase their geographic presence and portfolio breadth. Although they can do this organically, opportunistic partnerships and acquisitions can achieve this goal much more rapidly and efficiently. Several medical device players employed this approach over the last three to five years, including Philips via its acquisition of Goldway to access China's mid-tier patient monitoring market and GE through its JV with Shinva to develop and market mid-tier x-rays in China. Unfortunately, few targets of this scale exist in most product categories.

Local M&A cannot be approached casually, as valuations have soared and the integration process can be highly problematic. Many local players in BRIC markets are family-run businesses that require challenging courtships; availability can be driven as much or more by family dynamics (e.g., succession gaps, divorce, death) as by business fundamentals. Then there are the perennial issues of business practices and FCPA exposure, informal (often family-based) relationships and information networks and very different accounting policies and financial controls.

Many MNCs are looking for non-traditional approaches and are less focused on the classic acquisition of new products or local manufacturing, for example:

- Roche's exclusive marketing agreement in India with MannKind Corp. to enhance penetration of its Accu-Chek Go blood glucose monitors in tier 2/3 towns where MannKind has an extensive distribution network; and
- Several other MNCs partner or even informally collaborate with appealing local players that either lack the scale or are not interested in selling their business today but are viewed as promising targets. They give the MNC a "seat at the table" and in some instances a first-offer opportunity to acquire.

From an integration standpoint, it is important for MNCs to be thoughtful about how to create the right linkages and an organization model that balances local autonomy while leveraging broader corporate strengths. It is crucial to keep all of the entrepreneurship, hustle and local savvy that made the target a success.

Winning The War For Talent

The ability to attract and retain top talent is critical to success in emerging markets. However, finding qualified executives for key operational roles can be even more difficult than in the US or EU, given the scarcity of talent and increasing competition. Several players found ways to combine incentives, training and recruitment programs successfully.

- Siemens Medical Solutions USA Inc. established partnerships with on-campus recruiting at top universities focused on corporate branding, local events and development programs for young talent. The company even established an educational scholarship in medical physics with Tsinghua University. In addition, Siemens AG created the Siemens Management Institute in Beijing, which trained over 16,000 employees through 2010, which is credited with helping Siemens avoid typically high attrition rates in the area.
- Medtronic has announced plans to hire 1,000 workers in China and 600 in India with a focus on engineering and research talent; at the same time it is reducing its global workforce by nearly 5%. As the company's CEO, Omar Ishrak, said, "The level of skill that's available in India, in China and in Korea is actually quite good," and is a "way of growing quite quickly in a much more efficient fashion."
- Boston Scientific recently announced a \$150 million five-year plan to follow suit and establish local manufacturing and a development/training center in China.

Other players need to quickly follow suit to build their local commercial presence in a way that attracts and retains talent.

Adopting An Emerging-Market Mind-Set With A Reasonable Investment Horizon To Avoid The "Mid-Way" Profitability Trap

MNCs must be willing to plan, organize and act like local companies. They need to empower local decision making and enable local experimentation, knowing that the manufacturing, commercial and consumer insights critical to success will vary by market.

Successful players must also be prepared for major up-front investments and longer payback periods to achieve a lasting leadership position. Failure to commit to this will result in companies that are stuck in a mid-way profitability trap with inferior growth/revenues and profitability from emerging markets.

Emerging markets present an attractive and exciting growth opportunity for medical device companies. However, given the growing focus and competition across these markets, MNCs need to move quickly to define their path across the mid-tier and premium segments. Although the business model specifics will need to be customized for each market, companies can get ahead of the game and the market's evolution by leveraging insights from other industries, including seven imperatives, which have helped other companies become leaders in emerging, as well as developed markets.

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