Pharma emerging markets 2.0

How emerging markets are driving the transformation of the pharmaceutical industry
**Contacts**

**Beirut**

Gabriel Chahine  
*Partner*  
+961-1-985-655  
gabriel.chahine  
@strategyand.pwc.com

Dr. Walid Tohme  
*Partner*  
+961-1-985-655  
walid.tohme  
@strategyand.pwc.com

**Berlin**

Peter Behner  
*Partner*  
+49-30-88705-841  
peter.behner  
@strategyand.pwc.com

Stephan Danner  
*Partner*  
+49-30-88705-868  
stephan.danner  
@strategyand.pwc.com

**DC**

Rick Edmunds  
*Partner*  
+1-703-682-5755  
rick.edmunds  
@strategyand.pwc.com

**Dubai**

Dr. Nikhil Idnani  
*Principal*  
+971-4-390-0260  
nikhil.idnani  
@strategyand.pwc.com

**London**

Tobias Handschuh  
*Principal*  
+44-20-7393-3368  
tobias.handschuh  
@strategyand.pwc.com

**Moscow**

Steffen Leistner  
*Senior Executive Advisor*  
+7-985-368-78-88  
steffen.leistner  
@strategyand.pwc.com

**Mumbai**

Nikhil Bhandare  
*Principal*  
+91-22-6128-1130  
nikhil.bhandare  
@strategyand.pwc.com

**New York**

Marcus Ehrhardt  
*Partner*  
+1-212-551-6421  
marcus.ehrhardt  
@strategyand.pwc.com

**São Paulo**

Fernando Fernandes  
*Partner*  
+55-11-5501-6222  
fernando.fernandes  
@strategyand.pwc.com

**Shanghai**

Sarah Butler  
*Partner*  
+86-21-2327-9800  
sarah.butler  
@strategyand.pwc.com
About the authors

Dr. Matthias Buente was formerly a partner with Booz & Company.

Stephan Danner is a partner with Strategy& based in Berlin. He works with global pharmaceutical clients on corporate strategies, effective operating models, and performance improvement programs along the entire value chain. Go-to-market models in emerging as well as mature markets are one of his areas of expertise.

Dr. Susanne Weissbäcker was formerly a principal with Booz & Company.

Christoph Rammé was formerly a senior associate with Booz & Company.

This report was originally published by Booz & Company in 2013.
Contents

About the authors ............................................................................................................. 3

Foreword: Taking a fresh look at emerging markets ................................................. 5

Executive summary:
The potential and challenges of emerging markets ................................................. 7

I. Emerging markets: A fundamental driver of pharma's future growth ........................... 10

II. Barriers to growth .................................................................................................. 22

III. Conquering emerging markets with new strategies ............................................. 33

IV. Africa: The next big opportunity? ........................................................................ 46

V. Finding the right operating model and the right talent to support it .................... 57

VI. Successful players and conclusions ..................................................................... 64
Foreword: Taking a fresh look at emerging markets

This is a time of changing priorities for global pharmaceutical executives. As growth patterns in developed markets continue to flatten, firms are shifting more of their focus to finding new sources of revenues and profitability in emerging markets.

There is reason for hope: Driven by increasing wealth and a growing awareness of the advantages of good healthcare and healthier lifestyles, emerging markets are developing into sources of significant growth. But there is also reason for caution: The initial enthusiasm that erupted when emerging markets first demonstrated their potential has often given way to disappointment, as early — and possibly exaggerated — expectations remain largely unfulfilled.

Since go-to-market models typical of mature economies have often failed to adequately tap the huge potential attributed to emerging markets, leaders are rethinking and, in many cases, transforming their operating models to better address what they have learned about these markets. Traditional models have for decades been largely defined by fully integrated operations, which included significant investments in R&D hubs and selected manufacturing sites. Emerging markets, on the other hand, have usually been regarded as places for selling medications, but very rarely as potential locations for developing or manufacturing them. This view is now being challenged.

To better understand both the challenges faced by the global pharmaceutical industry in its pursuit of emerging-market opportunities and the strategies that leaders are employing to address them, Strategy& surveyed executives from more than 25 of the top pharmaceutical and generics companies, other industry experts, and members of Strategy&’s global pharmaceutical practice.

Participating in the survey were 12 of the top 15 global pharmaceutical players, accounting for some 50 percent of total global pharmaceutical revenues. This comprehensive study outlines how pharmaceutical companies can effectively and successfully manage their emerging-market regions.
We would like to take the opportunity to offer our sincerest thanks to all those who contributed to this study by providing input into the survey or sharing their insights during the interviews.
Executive summary: The potential and challenges of emerging markets

Emerging markets have long been regarded as the “promised land” of the pharmaceutical industry. They are expected to amount to nearly a third of the global pharmaceutical market by 2016, and it is anticipated that they will play a vital role in sustainable growth in the industry. With huge populations, increasing prosperity, and improving longevity (albeit at differing rates), these markets are very attractive to those companies suffering from the stagnation of mature markets, patent expirations, and increased regulatory hurdles.

However, although these regions offer huge untapped potential, they display a wide diversity in their stages of development, particularly with regard to their healthcare infrastructure. For this reason, there can be no “one-size-fits-all” approach to emerging markets. Even among the three main clusters of markets — the BRICMT economies (those of Brazil, Russia, India, China, Mexico, and Turkey); second-tier countries such as those of Southeast Asia; and finally Africa — there are local idiosyncrasies that make bespoke approaches to these markets essential.

Given this diversity, it is paramount to distinguish between those markets in which pharmaceutical companies want to expand their presence in the short term, and those that are “on the back burner” for the time being. Then comes the challenge of defining market-tailored and effective business strategies for each market segment, and the appropriate time lines. Many organizations have failed to do this adequately in the past, with consequent losses of both revenues and confidence. These harsh lessons of the past must not be forgotten, as they provide a framework on which to build success in the future.

Our study of top pharmaceutical executives indicates that those lessons remain fresh in the minds of industry leaders. Indeed, 27 percent see insufficiently tailored strategies as the biggest strategic misstep, while 25 percent criticize a lack of patience and long-term strategy.
According to our survey, executives also believe the following:

- Emerging markets will increase in general significance: Fifty-two percent of those we interviewed expect more than 30 percent of their global sales to originate in emerging markets by 2018.

- Although the BRICMT group is expected to remain the dominant force, second-tier markets, such as those in Southeast Asia, are increasing in relevance.

- As a consequence of growing prosperity and better nutrition, disease patterns in emerging markets are rapidly changing and shifting toward “lifestyle” diseases that are more common in mature markets. This trend opens up new markets for existing products. Almost half of our respondents estimate that the number of cases of diabetes will increase by more than 20 percent over the next five years, while cardiovascular and oncological diseases are expected to follow a broadly similar trend. In line with the changing therapeutic areas, the relative importance of stakeholders is also changing: Seventy-eight percent of our respondents agree that the significance of payors will increase, while 58 percent expect the same for hospitals.

- Across all emerging markets, access is seen as a highly significant challenge. A lack of reimbursement and public funding is considered the key problem by 68 percent of respondents, closely followed by the lack of healthcare infrastructure and the issue of affordability.

- Emphasis is currently on developing the top line in emerging markets, although gaining market share is also considered to be important.

- A clear trend toward localization can be observed, particularly with regard to BRICMT countries. More than 60 percent of respondents consider investment in local research, local development, and local manufacturing to be the most effective levers for commercial success in these regions.

- As emerging markets develop further, go-to-market models will gradually mirror those currently employed in mature economies and include local R&D and manufacturing capabilities. Seventy-eight percent of interviewees are in favor of having and maintaining local subsidiaries in BRICMT countries, while 75 percent advocate having a local sales force.

- Respondents are more hesitant to commit themselves to long-term investments in second-tier markets and Africa. For the moment, the
majority prefers to establish and maintain partnerships within the existing infrastructure.

- As a consequence, Africa is seen as a long-term opportunity. Although strong growth rates are expected, only 22 percent of our respondents expect to employ the marketing and sales approaches that are typical for mature markets over the next five to 10 years. By contrast, 67 percent see this happening in BRICMT countries, and 43 percent in second-tier markets.

- Survey participants rated building good relationships with both local governments and local players among the key factors for success. Governments in emerging markets have learned much from their mature-market counterparts and are looking to retain control of their pharmaceutical markets. They are doing this by various means, including supporting local players even if they breach patent law.

- In order to maximize the opportunities in emerging markets, executives are beginning to realign the distribution of management power. The majority of industry leaders would prefer that control moves away from headquarters toward regional management, a measure that would increase the empowerment of regions and ensure local market focus.

- Retaining and recruiting local talent in emerging markets will turn into a decisive driver for success. In particular, companies will have to deal with high local attrition rates as more companies compete for the best resources.

- The “winners” in emerging markets will be those companies that know how to best balance their global competences with tailored approaches for local markets.
I. Emerging markets: A fundamental driver of pharma’s future growth

By 2016, the global pharmaceutical industry is expected to generate an estimated 30 percent of its total sales in emerging markets. But these expectations will be met only if the industry moves toward more bespoke market strategies. A comprehensive understanding of these highly significant but very diverse markets is therefore essential.

Too late, too fast, too overconfident: The sorry list of mistakes that international pharmaceutical companies have made in emerging markets is long, and the resultant squandering of resources has been great. As one manager stated, “One of our biggest mistakes was to treat emerging markets like mature markets. We were wrong. Pharmaceutical strategies have to fit a country’s individual needs and its development.”

This clear “mea culpa” on behalf of the pharmaceutical industry demonstrates the need to create new, individualized approaches that exploit opportunities while avoiding pitfalls. A growing number of executives, having learned the hard way, now share this view (see Exhibit 1, next page).

By 2010, healthcare spending in emerging markets had overtaken that of the EU5 (Germany, France, Italy, Spain, and the U.K.) in total.

Over the past five years, sales generated in emerging markets have doubled, totaling US$191 billion in 2011, and representing approximately 20 percent of the global market volume (see Exhibit 2, page 12). Emerging markets are beginning to deliver on their expected potential. However, threats to that potential need to be taken into consideration.

- The International Monetary Fund has recently revised expected GDP growth in emerging markets slightly downward. However, it should be noted that, in comparison to expected growth in mature markets, emerging markets still represent a very attractive proposition.

- By 2015, 40 percent of today’s pharmaceutical market will lose patent protection, which will also affect sales in emerging markets.
**Exhibit 1**
The biggest mistakes in emerging markets

What are the biggest mistakes that pharma companies make in emerging markets?

<table>
<thead>
<tr>
<th>Mistake</th>
<th>Percentage of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient tailoring of approaches to local needs</td>
<td>27%</td>
</tr>
<tr>
<td>Lack of patience and long-term strategy</td>
<td>25%</td>
</tr>
<tr>
<td>Poor HR management and hiring vs. partnering strategy</td>
<td>14%</td>
</tr>
<tr>
<td>Underestimating challenges, risks, and investment needs</td>
<td>14%</td>
</tr>
<tr>
<td>Late/too slow decision making and execution</td>
<td>9%</td>
</tr>
<tr>
<td>Centralization</td>
<td>5%</td>
</tr>
<tr>
<td>Others</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
Exhibit 2
Importance of emerging markets in a global context

Pharma market development
2006–16, in US$ billions

Source: IMS Market Prognosis, September 2011; IMS Pharmerging Overview, 2011
This is an indisputable stumbling block: Pharmaceutical companies must build up-front strategies to circumvent this hurdle in emerging markets.

*Despite such concerns, our interviewees are optimistic about the prospects for emerging markets* (see Exhibit 3, next page).

- Currently, only 1 percent of respondents generate at least 45 percent of their revenues in emerging markets, while 76 percent stated that the portion of their revenues from emerging markets is less than 30 percent.

- Every second respondent anticipates that by 2018 more than 30 percent of their company’s global sales will originate in emerging markets. Fifteen percent of respondents even believe that by that time emerging markets will account for more than 45 percent of their sales.

*The BRICMT group continues to be the economic leader among emerging markets, but second-tier countries and African markets are on the rise.*

The term “emerging markets” describes a dynamic, yet highly diverse group of countries and regions. This becomes apparent when one takes a closer look at individual economic potential. In Exhibit 4, page 15, we have plotted the pharmaceutical markets by their size in 2012 against their growth in 2011–12. The population of the individual countries is depicted by the size of the bubbles.

We distinguish among three clusters of emerging markets in this study:

- The BRICMT group *(gray bubbles)*, which comprises Brazil, Russia, India, China, Mexico, and Turkey, has demonstrated strong growth in the past. These countries are developing into markets that are comparable in size and nature to their mature Western counterparts. At the same time, these economies are becoming increasingly more stable, making them even more attractive. As a result, the BRICMT countries are occasionally referred to as “growth” markets, rather than “emerging” markets.

- The “second-tier” emerging markets *(medium red bubbles)* are a diverse group of more mature economies in Eastern Europe and the CIS (Commonwealth of Independent States, formed from the former Soviet bloc), as well as in more dynamic “threshold” countries such as those in Southeast Asia. Based on the size of their populations and growth forecasts, their future potential is attractive, as was
Exhibit 3
Importance of emerging markets

What is the importance (revenues contribution) of emerging markets in your company today and within the next five years?

Percentage of participants selecting share of global sales

Note: Percentages may not add up to 100 due to rounding.
Source: Strategy& analysis
Exhibit 4
Pharmaceutical market potential of emerging markets and mature markets

Pharmaceutical markets
Pharma market growth (2011–12) vs. pharma market size (2012)

Growth (%)

Note: Bubble size reflects 2012 population from Global Insight in millions.
Source: IMS Health Market Prognosis; Global Insight; Strategy& analysis
confirmed by Christopher Viehbacher, CEO at Sanofi, who recently said in an interview with the news agency Bloomberg (“Sanofi CEO Sees Opportunities for Deals in Vietnam, Colombia,” Susan Li and Albertina Torsoli, September 12, 2012): “Places like Vietnam, Indonesia, … Colombia have become extremely interesting in terms of growth.”

• The third group is made up of African markets (dark red bubbles), which are highly populous but have relatively smaller market sizes at the moment. They possess significant future potential. Africa does not yet play a significant role in pharmaceutical sales, since South Africa, Egypt, Algeria, and Nigeria are the only markets in the region where the volume of the pharma market exceeds $1 billion. However, in the coming years, as sub-Saharan Africa develops economically, the long-term potential offered by this vast continent will be huge. For this reason, we have devoted Chapter IV to Africa.

To gain more insight into the industry’s perspective, Strategy& asked top pharmaceutical executives to share their views on the current state of affairs and future prospects in the individual markets.

*Which emerging markets are most relevant today? Where do executives expect to see change over the next five years?*

Our survey benchmarked “perceived present relevance” against “expected future relevance,” on a scale from 1 (least relevant) to 5 (most relevant). Based on the responses, Exhibit 5, next page, maps the average perceived relevance today to the expected change in relevance over the next five years. This means that, for example, countries that are considered highly relevant today and whose significance is expected to strongly grow are depicted in the top right quadrant.

• Respondents agree that BRICMT markets are currently dominant in relevance. They further expect the BRICMT regions to maintain their leading role until at least 2018, as indicated by a further increase of relevance by 0.2 points.

• The most relevant second-tier region is Latin America, while Southeast Asia’s relevance is predicted to increase the most. However, with the exception of Central/Eastern Europe, the relevance of all these markets is expected to grow significantly.

• Sub-Saharan countries are currently viewed as being the least relevant region, yet with very positive prospects for future growth *(see Chapter IV, page 46).*
**Exhibit 5**
Estimated relevance increase of emerging markets in 2018 vs. relevance today

**Which emerging markets do you consider as most relevant today and in the future (2018)?**

1 = least relevant  
5 = most relevant

Note: Percentages may not add up to 100 due to rounding.

Source: WHO; Strategy& analysis
Changing disease patterns in emerging markets will provide pharmaceutical companies with additional opportunities to market their existing and increasingly global and innovative product portfolios.

Rapid economic development in any market has positive effects, such as increased prosperity, improved general health of the population, and increased longevity. But there are also knock-on negative effects, including an increase in noncommunicable diseases such as diabetes and cardiovascular complaints. Statistics supplied by the World Health Organization can be translated into a global map of the expected development of disease patterns (see Exhibit 6, next page).

The map illustrates that although infectious diseases still dominate in many emerging markets, noninfectious illnesses are expected to rise disproportionately fast. These illnesses are characteristic of ones typically associated with more highly developed regions, which confirms that emerging-market lifestyles are beginning to mimic those of more Westernized markets. In our opinion, this development presents pharmaceutical companies with an opportunity to market their global products in an extended market, but also necessitates a change in their go-to-market strategies and operating models.

The data in Exhibit 6 was confirmed by our survey participants when we asked them to name which therapeutic areas will grow the most over the next five years:

- The strongest increase by far is expected in diabetes, followed by oncology and anti-infectives and antivirals, with cardiovascular diseases a close fourth (see Exhibit 7, page 21).
  - Nearly half of the study participants expect the number of diabetics in emerging markets to grow by more than 20 percent over the next five years.
  - A third of the respondents believe that oncological diseases will increase by more than 20 percent.
  - Nearly one in four pharmaceutical executives predicts that the volume of cardiovascular diseases will increase by more than 20 percent over the next five years. A similar trend is predicted for anti-infectives and antivirals.
Exhibit 6
Disease patterns in 2008 compared to expected pattern by 2030

Development of disease patterns
Mortality rates, 2008–30

Note: Percentages may not add up to 100 due to rounding.
Source: WHO; Strategy& analysis
• By contrast, the majority of respondents foresee a much smaller growth potential for diseases of the central nervous system, presumably because instances of these diseases will become more apparent only as longevity increases.

In summary, our survey shows that the various emerging-market regions differ greatly, and that disease patterns are beginning to duplicate those of more mature markets, with noncommunicable diseases (such as diabetes and oncology) growing strongest. Companies looking to exploit their full potential in emerging markets need to identify which of the key characteristics in these market segments should be addressed. In the following chapters, we will consider some of these issues and illustrate the need for new, tailored business models.
### Exhibit 7
Development of therapeutic areas in emerging markets within the next five years

In which therapeutic areas do you expect the highest growth rate in the emerging markets during the next five years?

Percentage of participants selecting growth category

<table>
<thead>
<tr>
<th>Therapeutic Area</th>
<th>N/A</th>
<th>0–4%</th>
<th>5–9%</th>
<th>10–19%</th>
<th>20% or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>3%</td>
<td>32%</td>
<td>12%</td>
<td></td>
<td>49%</td>
</tr>
<tr>
<td>Oncology</td>
<td>3%</td>
<td>23%</td>
<td>13%</td>
<td></td>
<td>33%</td>
</tr>
<tr>
<td>Anti-infectives and antivirals</td>
<td>3%</td>
<td>14%</td>
<td>16%</td>
<td>10%</td>
<td>25%</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>7%</td>
<td>22%</td>
<td>16%</td>
<td>32%</td>
<td>23%</td>
</tr>
<tr>
<td>Central nervous system</td>
<td>13%</td>
<td>29%</td>
<td>16%</td>
<td>26%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: Survey results; Strategy& analysis
II. Barriers to growth

Pharmaceutical companies face market access constraints that include underdeveloped healthcare infrastructures, cost containment measures, and value-based product evaluations.

Among the manifold challenges that pharmaceutical companies face in emerging markets, one hurdle stands out above the rest: market access. But all these challenges are reflected in the different healthcare development agendas across emerging markets (see Exhibit 8, next page). They fall roughly into three categories:

• “Infrastructure developers”: Some countries currently do not have well-developed healthcare infrastructures and thus focus on improving access to healthcare for the general population. For example, Nigeria is implementing its National Health Insurance Scheme.

• “Cost containers”: Many countries put in place containment measures to manage the costs of their evolving healthcare systems. The simplest and most common method is to not provide (complete) reimbursement to patients. Other governments increasingly rely on tendering for hospital business. For instance, Vietnam is experimenting with an elegant approach: This second-tier emerging market is implementing a centralized annual tendering program in 2013. As out-of-pocket payments account for approximately 60 percent of the market’s healthcare spending, the goal is to make drugs more affordable for patients by introducing a price cap. As a consequence of this program, the cost of some products is expected to fall by 30 percent. Other emerging markets show similar approaches: high out-of-pocket payments (for example, 31 percent in Russia, 61 percent in India, and 14 percent in Thailand) for branded and non-branded pharmaceuticals, while governments support the use of generics and biosimilars, and introduce price restrictions.

• “Value maximizers”: Analogous to mature markets, some emerging markets are already moving toward value-driven drug evaluation
Exhibit 8
Examples of healthcare policy changes for selected emerging markets

In **Russia**, the price ceiling for "essential drugs" means a reduction in price for many products. The outpatient DLO reimbursement program is, therefore, expected to cover more of the population with its capped budget.

In **Nigeria**, the creation of an economic evaluation agency (CITEC) has become a big barrier to market access. New fast-track approval for biosimilars is expected.

**China** has introduced a more unified pricing measure to reduce the gap between local generics and off-patent international brands. Collaboration with the U.K.'s NICE could pave the way for economic analysis of new drugs.

In **Brazil**, the creation of an economic evaluation agency (CITEC) has become a big barrier to market access. New fast-track approval for biosimilars is expected.

In **India**, a further erosion of patent jurisdiction can be observed. An extension of direct price control to all drugs to stop free pricing is possible.

In **Vietnam**, the introduction of national health insurance will lead to tendering of drugs with downward pressure on prices. A new reference pricing scheme will look at each therapeutic class as a whole and possibly take the lowest price instead of the average price.

**South Africa** is implementing a centralized annual tendering program in 2013 and has introduced a price cap. The objective is to make drugs more affordable, given out-of-pocket payments of approximately 60% of the market’s healthcare spending.

**Nigeria** wants to improve access by implementing the National Health Insurance Scheme to establish universal healthcare for all citizens by 2015. The strengthening of the National Agency for Food and Drug Administration and Control will reduce counterfeit medicines and increase consumer confidence in new drugs.

Source: IMS Health; UNIDO; SCRIP; Strategy& analysis
The patent cliff

A hot topic in the pharmaceutical industry is the “patent cliff.” The end of drug exclusivity is reaching the emerging markets and putting a significant share of sales at risk.

Although this challenge is often mentioned in discussions about the prospects of mature markets, it will also hit the emerging markets. For example, between 2012 and 2016, the patent cliff will put sales worth a total of $21.4 billion in Asia-Pacific at risk. This corresponds to about 10 percent of the total Asia-Pacific market, which will by 2016 have reached a volume of $195 billion to $225 billion (see Exhibit A).

As a result, governments and payors are expected to extend the general use of generics and biosimilars across emerging markets to newer treatments, thereby increasing competition and price pressure on ethical companies with a mature portfolio.

Exhibit A
The “patent cliff” in emerging markets

Value of products at risk, 2005–16
Example: Asia-Pacific

Source: IMS Asia-Pacific Insight, Issue 2, 2012, page 5: IMS Health MIDAS MAT, June 2011, Rx-only (markets included: Japan, India, Australia, New Zealand, Korea, Singapore, Hong Kong, China, Taiwan, and Philippines); LoE Planning & Life Cycle Management
and pricing. Good examples are China, which is collaborating with the British National Institute for Health and Clinical Excellence (NICE), and Brazil, where an economic evaluation agency has been set up.

*Pharmaceutical executives consider market access to be their foremost challenge.*

While both market access and the patent cliff present significant challenges, access is clearly the primary pain point for executives. Only markets with a relatively developed healthcare system can sustain a profitable pharmaceutical business. Unlike mature markets, where pharmaceutical corporations are accustomed to battling with health technology assessment agencies from very established positions, emerging markets have jumped the curve and are raising sophisticated hurdles to their markets before many players have even established themselves.

Since healthcare policy is set by the central government, moving in early to work with officials to develop that policy is crucial. “We need to invest ahead of the market,” one executive said. “Then we can build the market and develop our commercial position.” Against this background, the challenges associated with the approaching patent cliff — such as price pressure and competition by local generics companies — appear secondary. This view is shared by our study respondents (*see Exhibit 9, next page*).

About two-thirds of the pharma executives identified a lack of public funding, a weak healthcare infrastructure, and a lack of affordability as the biggest challenges for growing their business. One example of these issues is the treatment of diabetic patients in China, particularly in rural areas, which demonstrates how the absence of a basic infrastructure hinders the appropriate use of medication, even when the medication is delivered to the point of application/sale.

- Due to a lack of basic healthcare infrastructure, the number of undiagnosed diabetes cases is high. Furthermore, even when diagnosed with diabetes, patients from rural areas have to travel long distances to visit the nearest hospital.

- Many physicians have not received basic training in the treatment of patients with diabetes.

- The average Chinese citizen also faces problems affording insulin treatment, so many diabetic patients either receive suboptimal management with oral antidiabetics or are not treated at all.
## Exhibit 9
### Key challenges to further growth in emerging markets

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Least relevant</th>
<th>Most relevant</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of reimbursement and public funding</td>
<td></td>
<td>68%</td>
<td>3.9</td>
</tr>
<tr>
<td>Lack of healthcare infrastructure</td>
<td></td>
<td>67%</td>
<td>3.8</td>
</tr>
<tr>
<td>Lack of affordability</td>
<td></td>
<td>64%</td>
<td>3.9</td>
</tr>
<tr>
<td>Price pressure</td>
<td></td>
<td>59%</td>
<td>3.8</td>
</tr>
<tr>
<td>Local competition</td>
<td></td>
<td>54%</td>
<td>3.5</td>
</tr>
<tr>
<td>Lack of IP protection</td>
<td></td>
<td>52%</td>
<td>3.6</td>
</tr>
<tr>
<td>Challenging/nontransparent contracting and tenders</td>
<td></td>
<td>51%</td>
<td>3.4</td>
</tr>
<tr>
<td>Talent issues (e.g., recruitment, development, and retention)</td>
<td></td>
<td>51%</td>
<td>3.5</td>
</tr>
<tr>
<td>Compliance challenges</td>
<td></td>
<td>49%</td>
<td>3.4</td>
</tr>
<tr>
<td>Lengthy product registration processes</td>
<td></td>
<td>43%</td>
<td>3.4</td>
</tr>
<tr>
<td>Regulatory requirements</td>
<td></td>
<td>36%</td>
<td>3.1</td>
</tr>
<tr>
<td>Supply chain and distribution issues</td>
<td></td>
<td>33%</td>
<td>3.1</td>
</tr>
<tr>
<td>Competition from multinationals</td>
<td></td>
<td>19%</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
Other key challenges to growth:

• While executives share a long list of concerns, each pharmaceutical company needs to evaluate them in the context of its specific portfolio. For example, a lack of healthcare infrastructure and affordability can be expected to be a bigger challenge for the producers of expensive specialty care than for those companies that manufacture primary-care products.

• Price pressure is aggravated by domestic competition, as local companies typically receive support from their governments, a phenomenon also often seen in public tenders across emerging markets. This situation is further exacerbated by the fact that local companies are typically generics manufacturers that will also benefit from the approaching patent cliff.

• Legal and regulatory issues are reflected in the lack of intellectual property (IP) protection (as can be seen in the following examples in the Indian market). The absence of transparency, lengthy processes surrounding tendering and contracting, and compliance challenges also are factors.

• Talent management is known to be a significant hurdle for companies in emerging markets and will be examined more closely in Chapter V.

_IP protection issues can significantly influence the go-to-market strategies and tactics of pharmaceutical companies._

India is a good example of how tough the situation can be with regard to intellectual property protection. The subcontinent is known to legally support generics companies in order to provide the Indian population with affordable medication. This support is given even when it goes against existing patent laws and corresponding rules of the World Trade Organization (compulsory licensing).

• Despite valid patent protection, Bayer’s Nexavar, a treatment for hepatocellular carcinoma, is facing competition from Natco Pharma. Due to the inability to afford Nexavar among the general population, the Indian government granted Natco manufacturing and marketing rights for the drug. Natco pays only 6 percent in royalties and is able to provide Nexavar at therapy costs of around $170 per month, while Bayer’s Nexavar therapy costs amount to $5,500 per month. Bayer eventually offered patients a reduced product price (about 10 percent of original therapy costs), but on the condition that reduced prices are available only to those patients diagnosed by licensed
Defining the addressable population

Most public discussions of affordability are characterized by rather generalized statements about how it limits drug consumption and market growth. In a recent study of affordability in India (see Exhibit B, next page), however, we found that this debate needs to be held on an indication level (since the propensity to spend on healthcare depends strongly on the severity of the disease) and requires the consideration of two key factors that limit the “addressable” population:

1. Access to healthcare, which is almost 100 percent in urban areas, but strongly decreases in rural regions to 25 percent; and
2. Adjusted net worth of an individual as determined not only by income but also by savings, family support, and insurance coverage.

Of India’s total population of 1.2 billion, only about 46 percent have access to healthcare. Of those, the “affordable” population varies strongly by indication; for example, we estimate that for a life-threatening cancer, with a treatment cost of $10,000 annually, the addressable population would be 23 million people. For anemia, with a comparatively low treatment cost of $270 a year, as many as 290 million people would have access to and could afford treatment. Although rheumatic diseases are a lot less costly to treat than oncological ones, we expect the addressable population to be smaller, since the “propensity to spend” for a non-life-threatening condition will be significantly lower. These numbers illustrate how important it is to consider the addressable population for each disease and factor in both access and affordability.
Exhibit B
Affordability of medication in India

Indian household income pyramid, 2012

*Lac is an Indian unit (1 lac = 100,000).

Note: These figures represent the theoretical number of people who would have access to and could afford treatment for each indication. The actual number of patients requiring treatment will depend on the prevalence, incidence, and treatment rate of each disease.

Source: Indicus; EIU; Strategy& analysis
oncologists. This stipulation has two advantages: It enhances the quality of healthcare for patients and reduces the risk of parallel trade.

- Boehringer Ingelheim (BI) markets its patented HIV drug Viramune in India, although it faces competition from local generics manufacturers. To protect its brand, BI made a commitment not to pursue lawsuits, as long as local manufacturers adhere to good manufacturing practice (GMP), to ensure a level of quality for the marketed product.

- In order to increase affordability and access to some of its blockbuster products, Roche entered a partnership with India's Emcure Pharmaceuticals in 2012: The latter would produce Roche's breast cancer drug Herceptin and its lymphoma and rheumatoid arthritis treatment MabThera for domestic sale — under different names and at significantly lower prices. However, the Indian government nevertheless started the process of granting a compulsory license on Herceptin in January 2013; it had already stripped the patent from Roche’s hepatitis C therapy Pegasys the previous year.

In line with the dynamically evolving challenges, the relevance of different stakeholders is changing.

To better understand the dynamics among the key players in the health system, Strategy& analyzed the role of the individual stakeholders by establishing their consolidated “net growth in importance.” This value is defined by the relative difference between the percentages of respondents who anticipate an increase in the importance of a certain group and those who expect a decrease (see Exhibit 10, next page).

- Given that basic medical care in emerging markets is typically provided by public hospitals, pharmaceutical executives expect payors and hospitals to continue to increase in relevance:
  - Of our respondents, a large majority (78 percent) consider payors to be of growing importance, with only 4 percent dissenting from this view.
  - Fifty-eight percent of our respondents consider hospitals to be of growing importance.

- Specialists, regulatory authorities, and patients are also expected to become more influential, reflecting the dynamics of an evolving health system in which specialists gain in relevance, cost containment measures are introduced, and patients are increasingly better informed about diseases and still pay a large part of the bill.
Study participants are divided with respect to pharmacists, distributors, and general practitioners (GPs), with similar numbers expecting either an increase or a decrease in importance.

- **Focus on pharmacists:** A large number of patients in emerging markets pay for their medication themselves. This may significantly influence their choice — particularly for over-the-

---

**Exhibit 10**
Expected shift of importance across stakeholders in emerging markets in the next five years

Which stakeholders do you expect to gain and decrease in importance for pharma companies in emerging markets over the next five years?

Percentage of respondents selecting stakeholders

<table>
<thead>
<tr>
<th>Importance</th>
<th>Growing</th>
<th>Declining</th>
<th>Net growth in importance (% growing importance - % declining importance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payors</td>
<td>78%</td>
<td>4%</td>
<td>74%</td>
</tr>
<tr>
<td>Hospitals</td>
<td>58%</td>
<td>3%</td>
<td>55%</td>
</tr>
<tr>
<td>Specialists</td>
<td>47%</td>
<td>1%</td>
<td>46%</td>
</tr>
<tr>
<td>Regulatory authors</td>
<td>46%</td>
<td>1%</td>
<td>45%</td>
</tr>
<tr>
<td>Patients</td>
<td>48%</td>
<td>6%</td>
<td>42%</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>26%</td>
<td>19%</td>
<td>7%</td>
</tr>
<tr>
<td>Distributors</td>
<td>25%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>GPs</td>
<td>22%</td>
<td>16%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
counter (OTC) or quasi-OTC products, which are dispensed at pharmacies without a prescription. Thus, a pharmacist can carry increased weight in the sale of a particular drug. However, it is important in this context not to generalize: In India, for example, pharmacies are legally required to be run by professional pharmacists. Even so, in an effort to save costs, the stores are often staffed with salespeople who are not in a position to provide medical or therapeutic advice to patients.

- **Focus on distributors:** In lower-tier markets, the role of distributors differs from that in more mature emerging markets. In these regions, pharmaceutical companies are likely to collaborate with local partners instead of building a full-blown infrastructure (see Chapter III, next page). They are therefore more likely to expect the importance of distributors to grow. In BRICMT countries, however, pharmaceutical companies are more likely to localize their operations, and hence do not expect a material increase in the importance of distributors.

- **Focus on physicians — specialists and general practitioners:** As noted earlier, the prevalence of “specialist” diseases, such as diabetes or tumors, is anticipated to increase significantly. In this context, the importance of medical specialists and hospitals will increase. However, as health systems and their infrastructure progress, the training of physicians improves and GPs will receive a higher level of education. Hence, they will be able to treat diseases that are today typically under the regimen of specialists, such as internists. Therefore, some experts expect GPs to gain in influence over time.

As a result of the specific dynamics in emerging markets, pharmaceutical companies must adapt their business strategies to the specific demands of the different healthcare agendas, the individual restrictions for market access, and the shifting role of the stakeholders involved. We explore the need for a new look at go-to-market models in the next chapter.
III. Conquering emerging markets with new strategies

For most industry executives, bolstering top-line growth in emerging markets is the number one priority and best achieved by progressive penetration of their existing markets and channels. Yet, since traditional strategies have often failed to deliver, executives are now turning old thinking on its head. Three out of four executives we interviewed foresee that, in the future, fully fledged models with local operations ranging from manufacturing and R&D to marketing and sales will be implemented in BRICMT countries.

What are the strategic priorities of pharmaceutical executives in emerging markets? How should integrated business models be adapted to meet those priorities?

• Survey participants confirmed that top-line growth is the main strategic priority for emerging markets (see Exhibit 11, next page). On a scale from 1 (lowest priority) to 5 (highest priority), this issue scored an average of 4.3.

• Gaining market share is also considered important, with an average score of 4.0, while optimizing the bottom line is currently less of a priority.

• However, a score of 3.5 for bottom-line optimization indicates that pharmaceutical executives are monitoring their cost base closely and will almost certainly reprioritize their focus in the future.

Respondents say that there are various ways to achieve these strategic priorities.

• One common strategy is the ongoing penetration of existing markets and channels. Many ranked this as the highest priority, resulting in an average score of 4.4 (see Exhibit 12, page 35).

• Geographic expansion is also considered to be an important initiative, with an average score of 3.7, and is viewed by respondents
as slightly more important than the expansion or diversification of the portfolio, which rated 3.4.

To understand how pharmaceutical executives can transform their traditional approaches into ones that maximize top-line growth in emerging markets, we asked study participants to evaluate a set of growth levers that cross the value chain, including R&D, manufacturing and supply, distribution, market access, and marketing and sales. Based on the replies, we first analyzed which levers and strategies actually drive business in emerging markets, and then examined how these go-to-market models affect a company’s internal structures and operating model (see Chapter V, page 57).

---

**Exhibit 11**

**Strategic priorities of pharmaceutical companies in emerging markets**

What are your company’s key strategic priorities in emerging markets over the next five years?

1 = least relevant  5 = most relevant  Average score given by participant

<table>
<thead>
<tr>
<th>Strategic priorities</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grow top line</td>
<td>4.3</td>
</tr>
<tr>
<td>Gain market share</td>
<td>4.0</td>
</tr>
<tr>
<td>Optimize bottom line</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
Three groups of key levers stand out:

- Local operations: local research, local development, and local manufacturing
- Sales excellence via local sales force
- Close collaboration with governments

All these factors have one characteristic in common: They advocate being on the ground locally. The majority of our respondents agree; more than 60 percent consider investments in local research, local

---

**Exhibit 12**

**Growth initiatives of pharmaceutical companies in emerging markets**

**What are your company’s top initiatives to drive growth in emerging markets over the next five years?**

1 = least relevant  5 = most relevant  Average score given by participants

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase penetration in current markets and channels</td>
<td>4.4</td>
</tr>
<tr>
<td>Expand geographically</td>
<td>3.7</td>
</tr>
<tr>
<td>Diversify and expand product portfolio</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
development, and local manufacturing to be the most significant levers for commercial success in BRICMT markets (see Exhibit 13, next page). “We are moving from made in China to created and discovered in China,” Sanofi CEO Christopher Viehbacher recently told Bloomberg.

Although the same cannot yet be said for second-tier markets and Africa, a surprising number of respondents felt that these levers were also important for these regions. In the case of second-tier countries, this figure was more than 30 percent; possibly, these respondents are already looking ahead to the increased significance of these markets in the future.

In developed markets, executives have been focusing for the past few years on improving efficiency and driving out costs. This has often led to significant layoffs, particularly in the marketing and sales departments but increasingly also in R&D. In many cases, the savings were used to build up local operations in emerging markets. This, in turn, resulted in an increasing number of fully fledged go-to-market models (which include local R&D, manufacturing, and significant sales forces). Thus, in some companies, a considerable share of funds and resources has already been reallocated to emerging markets. In 2011, 47 percent of AstraZeneca’s workforce was based in emerging markets, up from a mere 16 percent in 2002. This is a significant change, occurring over less than a decade — and in our view, just the beginning.

In this context of the trend toward localization, it is worth starting off with a closer look at the BRICMT countries, since they have developed into serious competition for Western industrial locations. Though close collaboration with governments ranks at the top of the executive priority list (83 percent), sales excellence via your own sales force (77 percent), local manufacturing (67 percent), and local R&D (about 65 percent) also received strong support (see Exhibit 13, next page).

Local manufacturing partnerships, for example, are already a common and effective tool for companies to enhance their position, as is illustrated by a number of examples:

- **Brazil**: Bristol-Myers Squibb has announced that the manufacturing and distribution of its HIV drug Reyataz will be transferred to a local company, Farmanguinhos laboratory, a unit of Fiocruz. A previous agreement in 2003 meant that Reyataz was included in a government-funded AIDS program and ensured a guaranteed sales volume over two years at a discount of 76 percent.

- **Russia**: In an effort to become a part of the national immunization calendar, GlaxoSmithKline supplies bulk vaccines and provides technology and expertise to Binnopharm, which then undertakes the
Exhibit 13
Strategic levers along the value chain across emerging-market clusters

Which levers/strategies do you consider most impactful for commercial success per market/region?

Agreement of respondents

Note: Percentages refer to the consolidated confirmations of a lever as relevant by the respondents.

Source: Strategy& analysis
filling and packaging. The agreement includes oncological drugs, medication for rotavirus, and pneumococcal vaccines. Pursuing the same goal, Pfizer and NPO Petrovax Pharm have been co-manufacturing pneumococcal vaccine since 2011, and Pfizer provides technology transfer and expertise to increase production quality among local producers, in accordance with GMP standards.

- **India:** As mentioned in Chapter II (see page 27), Roche has formed a partnership with Emcure Pharmaceuticals to enable affordable versions of its oncology drugs Herceptin and MabThera. The repackaged and rebranded products are expected to launch in 2013.

This trend is also spreading to second-tier markets. Although only a small number of respondents today believe in the prospects of localization, first initiatives can already be observed:

- The Japanese generics producer Nipro has announced plans to build a wholly owned generics production facility in Vietnam.

- In November 2012, Sanofi laid the foundation for an industrial facility in King Abdullah Economic City in Saudi Arabia. It would be the first global pharmaceutical company to establish a manufacturing plant with 100 percent foreign direct investment in the country. This project highlights how important Sanofi considers the rapid expansion of its presence in emerging markets in order to maximize revenue-earning opportunities. The corporation also recently received a land concession for a planned investment of $93 million in Sidi Abdellah, near Algiers, the largest French pharmaceutical complex in the Middle East and North Africa region. Medicine production should begin within three years.

  *A prerequisite for being on the ground locally is the establishment of good relationships with regional governments.*

Although this is especially true for the BRICMT countries, our respondents were clear that such relationships are also decisive for success in second-tier countries and Africa (see Exhibit 13, page 37).

- Governments are expected to become the primary points of contact for pharmaceutical companies in emerging markets. Though, as mentioned previously, 83 percent of respondents take the view that building such relationships is essential for a successful go-to-market approach in the BRICMT region, 67 percent felt this was also a priority for second-tier markets.
• Although less than half currently share this view for the African continent, cooperation with governments is still considered to be one of the top four levers for Africa.

Several recent cases show that collaboration with governments and quasi-governmental institutions can take on many different forms. For instance, public–private initiatives in manufacturing and R&D generally help to improve the chance of success in tenders. Specific examples include the following:

• Sanofi formed a joint venture with a firm owned by the Algerian government and now produces generic drugs for the local market. As a result, Sanofi has boosted its previous market share of 14 percent by seven percentage points.

• GSK struck a deal with the Brazilian government. In exchange for knowledge and technology transfers, the state guarantees GSK both a set price and set volumes for its pneumococcus vaccine for children.

• Bayer entered into an R&D collaboration with Tsinghua University in China.

• MSD initiated a research program with St. Petersburg State University.

• In the Asia-Pacific region, Novartis is focusing on cooperation with governments for developing specific drugs for Asian genetic diseases.

Partnerships that involve localized brands are very important in second-tier regions and Africa.

One interesting point arising from our survey is that our respondents see partnerships within the existing infrastructure to be more important in second-tier and African markets than in BRICMT countries. The strategy for second-tier and African markets can really be summed up in one word: collaboration.

Close collaboration with local distributors can be critical, as these partnerships allow firms to leverage the distributor in order to increase market coverage: Forty-nine percent of respondents prefer this go-to-market strategy, making it more popular than engaging with either hospitals or retail pharmacies (see Exhibit 13, page 37).

Having ascertained which levers are most important, we explore how they are implemented and backed up with investments in local infrastructures — and what best practice looks like.
**Second branding**

Another strategy that is increasing in importance, especially in second-tier markets, is second (or dual) branding. It can help to leverage the cost benefits that arise from local operations and/or manufacturing and result in benefits, particularly in local tenders.

Though existing brands are used in higher-priced segments, companies are introducing “follower” brands to serve lower-priced segments. They are usually manufactured locally and with a different name, packaging, or cover. This helps, at least in the short term, to secure market share and achieve differential pricing. Typically, this strategy is very effective in markets with high patient co-payments. To quote Jon Pender, vice president, government affairs, intellectual property, and access, at GSK (FirstWord Publishing, February 2012): “A major challenge [is] to try and segment the market in a way whereby we can responsibly take advantage of the real commercial opportunities that exist in the growing middle classes in the countries, but at the same time try to expand access amongst the poorest communities.” Sanofi has successfully implemented this dual brand strategy with Clopidogrel in Indonesia, following the loss of its exclusivity.

Based on the survey findings about the impact of different strategies in the individual emerging-market clusters, study participants were asked to evaluate which local infrastructure characteristics they consider to be most relevant (see Exhibit 14, next page). This can be used as an indication of how serious executives are about adapting their go-to-market models and in what areas real investments are to be expected.

*Local infrastructure is generally considered to be of great relevance in emerging markets, but particularly in the BRICMT countries, where economies are more stable. For many executives, this includes local manufacturing/packaging and R&D facilities.*

- Respondents agree on the positive prospects of local subsidiaries (78 percent) and retaining their own sales forces (75 percent) in BRICMT countries.

- Opinions on the relevance of local manufacturing/packaging facilities (58 percent) and local R&D departments (41 percent) are not as clear-cut, though some players have already staked a lot in these areas.

  - Sanofi was one of the pioneers in Brazil, first establishing a presence as far back as 1955. With sales of €1,522 million ($2,008
million) in 2011, this region is today the company’s fifth-largest country by sales. Sanofi maintains manufacturing capabilities at four sites, with a staff of more than 5,200 employees; over 95 percent of the company’s products sold in Latin America are produced locally. Sanofi is also well established in China, with a fully integrated presence: Eleven regional offices and about 7,000 employees, more than 4,000 of them in the sales force. In addition, the company maintains a network of six manufacturing sites and a regional R&D platform.

- Novartis invested $1 billion in an R&D site in Shanghai. Furthermore, the Swiss company was already conducting nearly two-thirds of its clinical trials in emerging markets by 2011 (see Exhibit 15, next page).

Exhibit 14
Relevant local infrastructure across emerging-market clusters

Which local infrastructure do you consider most relevant for commercial success in different emerging markets?

<table>
<thead>
<tr>
<th>BRICMT</th>
<th>Second tier</th>
<th>Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary/independent</td>
<td>Own sales force</td>
<td>Partnerships with local companies</td>
</tr>
<tr>
<td>Own sales force</td>
<td>Own manufacturing/packaging facilities</td>
<td>Own R&amp;D departments</td>
</tr>
<tr>
<td>Own manufacturing/packaging facilities</td>
<td>Own sales force</td>
<td>Partnerships with local companies</td>
</tr>
<tr>
<td>Own R&amp;D departments</td>
<td>Partnerhips with local companies</td>
<td>Own manufacturing/packaging facilities</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis

---

Strategy&
Other multinational corporations have also taken the plunge and are running local R&D facilities. For example, Johnson & Johnson operates R&D hubs in Brazil, Russia, India, and China, while AstraZeneca is present in China, Russia, and India.

_The jury is still out when it comes to second-tier markets._

The pharmaceutical industry has not yet developed a clear local infrastructure strategy for second-tier emerging markets. The smaller volume of these markets and their alleged greater instability pose a challenge for many executives.

---

### Exhibit 15

**Novartis’s clinical trials by region**

**By region, 2011 (±% 2010)**

- **Asia-Pacific, Middle East, and Africa (+235%)**
- **Central Europe (-25%)**
- **Eastern Europe (+15%)**
- **North America (-64%)**
- **Latin America (-1%)**
- **Japan (-44%)**

Note: Percentages may not add up to 100 due to rounding.

Source: Company information; Strategy& analysis
Respondents are clearly divided. Nearly half of them consider their own sales forces to be essential and just slightly fewer affirm the importance of local subsidiaries. Forty-one percent claim that partnerships with local companies are critical (see Exhibit 14, page 41).

The idea of running local manufacturing/packaging and R&D departments has very few advocates, with only 1 percent voting for the latter.

*Investments in local infrastructure are considered to be least relevant in Africa.*

Partnerships with local companies appear to be the most promising approach, with 42 percent of interviewees being in favor.

Since many see the continent as the “final frontier” of emerging markets, we have dedicated the entire next chapter to the significant opportunities and challenges this vast and heterogeneous region offers.

*The challenges in the pharmaceutical industry are further aggravated by the rapid pace at which the markets are changing. Consequently, our study participants expect go-to-market models to change in the very near future.*

In less than a decade, executives expect to see BRICMT countries targeted with go-to-market models that are comparable to those in mature markets. Two-thirds anticipate similar marketing and sales approaches, while 58 percent expect similarities in market access (see Exhibit 16, next page).

*However, our interviewees are more skeptical when it comes to models for second-tier markets and Africa.*

The development in second-tier markets is expected to be somewhat slower. Again, marketing and sales and market access are the areas in which pharmaceutical executives expect the most movement. The other aspects lag behind — and only 3 percent believe that R&D activities will play as big a role as in developed markets. The results emphasize again that these regions require a more individually tailored approach.

Only a minority of respondents believe that traditional go-to-market models will be applied in Africa anytime soon (see Chapter IV, page 46, for more detailed analysis).
Do you expect pharma companies to apply similar go-to-market models in emerging markets as in mature markets during the next five to 10 years?

Exhibit 16
Expected similarities of go-to-market models in emerging markets vs. mature markets in the next five to 10 years

Source: Strategy& analysis
The findings described in this chapter illustrate that seismic change is taking place. Companies are struggling with a complex range of factors, from the patent cliff to the many challenges associated with market access. In an effort to maintain or even drive their margins, companies are cutting costs in mature markets and reinvesting in less developed regions that promise better cost-benefit ratios and higher growth potential. Yet reallocating funds and resources is not as simple as it seems, since traditional go-to-market models need to be adapted to meet local conditions.

In terms of promise, the BRICMT countries are the most advanced of the three clusters, and our industry experts expect to apply strategies in these regions that are similar to those used in mature markets — ranging from the buildup of local R&D and manufacturing operations to marketing and sales approaches. The result will be fully integrated go-to-market models.

Our interviewees are more divided with regard to second-tier markets and, for the time being, are feeling their way carefully, concentrating on networking in the region. The first initiatives for localization are taking place but are still of an experimental nature.

Executives are still some way off from committing resources in Africa. Strategies remain at the exploratory level:

- Leveraging local distributors
- Forming collaborations with government
- Using pricing strategies to drive the top line

They show less enthusiasm for the following:

- Committing long-term resources
- Investing in local research, development, and manufacturing
- Building local sales forces

But is this view justified? And will early movers gain a serious competitive advantage in Africa in the long run? We explore the situation in Africa more closely in the next chapter.
As mentioned in the introductory chapter, two African clusters (sub-Saharan Africa and the North African states) are expected to be among the three groups of emerging markets with the highest increase in importance. “We’re thinking hard about what happens when those emerging markets start to slow because they are not going to continue growing at the rate that they’re growing forever,” Joseph Jimenez, chief executive officer of Novartis, recently told the news agency Reuters, “and a place where we’re putting a lot of our attention is Africa.”

Many consider Africa to be the final frontier of emerging markets. The continent is vast, highly diverse, and full of great potential — but it also presents great challenges. Although sub-Saharan markets are currently embryonic, their expected relative increase in importance is significant and not far behind that of Southeast Asia.

This evolution of the continent is defined by a multitude of factors:

- In 2009, the United Nations stated that the population of Africa had hit the 1 billion mark, making it the most populous continent after Asia. This means that around 14 percent of the world’s population lives in Africa.

- With a combined GDP of $2.9 trillion, Africa as a whole ranks fifth in the world — behind Germany, but ahead of France and Brazil.

- Although Africa obviously starts from a lower baseline than other continents, the United Nations Conference on Trade and Development predicts an 82 percent growth in direct foreign investment in Africa between 2012 and 2014, compared with a significantly lower figure of 36 percent in Asia.

- In addition, Africa is attempting to strengthen its economy by leveraging its own resources: The infrastructure ministers of the 15 Southern African Development Community countries have approved an investment program of $500 billion for the transport, water supply, communications, and tourism sectors, to take effect by 2027.
• Africa has a growing middle class, with an expected annual disposable income of more than $1 trillion by 2023.

• As is the case with second-tier markets, South Africa and Northern African countries boast GDPs per capita between $6,000 and $11,000.

Of course, doing business in Africa poses its own challenges:

• Africa comprises 54 countries in various stages of economic evolution, medical care facilities, healthcare policy, and population wealth. Sub-Saharan nations, in particular, have a limited economic base from which to kick-start their development, and thus a considerable way to go before they can match the economic pace of the wealthier areas of the continent (see Exhibit 17, next page).

• Nearly 70 percent of HIV/AIDS patients live on the African continent. This is a huge burden on a growing economy and an impediment to more rapid economic development. An estimated 14 million children in Africa have been orphaned as a result of HIV/AIDS. In addition, infant mortality rates are the highest in the world, at about 109 per 1,000 in some parts of sub-Saharan Africa.

All these factors are reflected in the growth forecast for the African pharmaceutical market (see Exhibit 18, page 49):

• As part of the anticipated general economic growth, the African pharmaceutical market is expected to achieve a year-on-year growth rate of 10.6 percent by 2020, resulting in pharmaceutical sales of $45 billion in 2020.

• Above and beyond the general economic development, pharmaceutical growth is also driven by governments striving to improve access to healthcare for their citizens. For example, Nigeria, Africa’s most populous country, is aiming to implement its National Health Insurance Scheme to provide universal healthcare for all citizens by 2015 (see Exhibit 8, page 23).

Taking these factors into account, leading participants in the pharmaceutical field consider South Africa and the Northern African economies to be as important for their businesses as second-tier emerging markets. Although sub-Saharan markets are currently awarded the lowest priority, their expected relative increase in importance is the second highest among all of the emerging-market regions, after Southeast Asia (see Exhibit 5, page 17).
As a result of the improving standards of living and the more Westernized lifestyle, the World Health Organization predicts that disease patterns in Africa will shift significantly.

- Infectious diseases, maternal and perinatal conditions, and nutritional deficiencies currently account for nearly two-thirds of Africa’s overall disease burden. The incidence of “basic” health issues, such as infant mortality, will decrease (see Exhibit 19, page 50).

- Lifestyle diseases, particularly cardiovascular diseases, are expected to increase, and will gain noticeably in importance by 2030 (from 11 percent in 2008 to 19 percent in 2030).

- Longer life spans will have a knock-on effect on the rates of oncological diseases, which are expected to double over the next two decades, from 5 percent of all diseases to 10 percent.

---

**Exhibit 17**

**GDP across African countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP (in US$ billions)</th>
<th>GDP per capita (in US$ thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>422</td>
<td>11.0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>247</td>
<td>2.5</td>
</tr>
<tr>
<td>Egypt</td>
<td>232</td>
<td>6.3</td>
</tr>
<tr>
<td>Morocco</td>
<td>102</td>
<td>8.4</td>
</tr>
<tr>
<td>Angola</td>
<td>99</td>
<td>6.6</td>
</tr>
<tr>
<td>Libya</td>
<td>93</td>
<td>10.0</td>
</tr>
<tr>
<td>Sudan</td>
<td>63</td>
<td>1.9</td>
</tr>
<tr>
<td>Tunisia</td>
<td>49</td>
<td>9.2</td>
</tr>
<tr>
<td>Ghana</td>
<td>39</td>
<td>3.0</td>
</tr>
<tr>
<td>Kenya</td>
<td>36</td>
<td>2.3</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>31</td>
<td>2.1</td>
</tr>
<tr>
<td>Cameroon</td>
<td>26</td>
<td>4.0</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>24</td>
<td>2.4</td>
</tr>
<tr>
<td>Tanzania</td>
<td>23</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: World Bank; CIA Factbook; Global Insight; UNIDO; Strategy& analysis
Top executives are already factoring this development into their business plans. While anti-infectives and antivirals demonstrate strong short-term growth, they will be overtaken by treatments for lifestyle diseases in the long term.

Respondents agree that pharmaceutical growth rates are expected to differ significantly across therapeutic areas and time horizons (see Exhibit 20, page 51):

- As the wealth of the general population increases, affordability of medication will rise similarly. This means that healthcare that was previously denied on the grounds of cost, such as that for HIV/AIDS patients, will be increasingly taken up. Most of our survey participants expect anti-infectives and antivirals to retain their dominant market position and continue to demonstrate strong growth over the next five years. Our survey shows that 32 percent of
Increased wealth and a more Westernized way of life within a population go hand in hand with an increase in lifestyle diseases, such as diabetes and cardiovascular indications. Reflecting a similar trend in other emerging markets, these negative side effects of social change are predicted to increase significantly in Africa. Nearly half of all those surveyed expect the number of cases of diabetes to grow by 10 percent or more, and 22 percent expect an increase of 20 percent or more.

The market for oncological products is not expected to grow as fast in Africa as in other regions during the next five years. Though 31 percent of respondents expect annual growth rates to 20 percent or more, with a further 30 percent of respondents expecting growth rates in the range of 10 to 19 percent. This exceeds the prospects for antibiotics and antivirals in other emerging markets (see Exhibit 7, page 21).
percent expect this therapeutic area to increase by 10 percent or more across all emerging markets, only 25 percent foresee such a rate for Africa, highlighting that the growth prospects in such specialized therapeutic areas need to be regarded as longer-term opportunities.

- Diseases of the central nervous system such as dementia or multiple sclerosis are expected to follow a development pattern and time frame similar to that of oncological diseases.

- Interestingly, more than a quarter of all respondents do not have a view on expected pharmaceutical growth rates in Africa. This may reflect a certain level of “non-familiarity,” accompanied by the typically low priority of African markets for many pharmaceutical executives.
The lack of healthcare infrastructure and the unaffordability of medication are the biggest hurdles to growth in the African markets.

Survey participants foresee a number of basic challenges for pharmaceutical companies arising from the economic situation in African markets:

• Lack of healthcare infrastructure emerged as the primary challenge in Africa, as 74 percent of all participants consider it to be a limiting factor in their business (see Exhibit 21, next page). This highlights the fact that challenges in Africa tend to be more basic than anywhere else: Only 67 percent regard lack of infrastructure to be a key challenge across all emerging markets (see Exhibit 9, page 26).

• Lack of affordability came second, with 72 percent of all respondents seeing it as a major limitation to business growth.

• Across all emerging markets, a lack of reimbursement and public funding surfaced as the most important constraint to growth (see Exhibit 9, page 26). For Africa, this factor only ranked third, well behind the top two factors.

• Supply chain and distribution issues are much more crucial in Africa than in other regions: This factor was rated fourth, selected by 55 percent of the respondents. On average, only 33 percent of respondents considered this to be an industry-wide problem in emerging markets.

Given executives’ objectives and the numerous challenges they face in Africa, it is only natural that they are approaching these markets tentatively and, for the moment, relying on collaboration with the government and local partnerships.

Exhibit 22, page 55, demonstrates that pharmaceutical executives are not entirely of one mind with regard to the most impactful levers and strategies for their African business:

• The majority of respondents recognize the need to build relationships with local NGOs, foundations, and associations — and 42 percent see a further need for close collaboration with governments — in an effort to establish the infrastructures required to sell or apply pharmaceutical products (see “Collaborations with Local NGOs and Foundations,” page 54).

• Economic considerations, such as market size and economic and sociopolitical stability, as well as the state of the healthcare system
What are pharma companies’ key challenges to further growth in African markets?

1 = least relevant     5 = most relevant

Percentage of participants selecting score

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Least relevant</th>
<th>Most relevant</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of healthcare infrastructure</td>
<td>16%</td>
<td>74%</td>
<td>3.7</td>
</tr>
<tr>
<td>Lack of affordability</td>
<td>16%</td>
<td>72%</td>
<td>3.6</td>
</tr>
<tr>
<td>Lack of reimbursement and public funding</td>
<td>16%</td>
<td>59%</td>
<td>3.4</td>
</tr>
<tr>
<td>Supply chain and distribution issues</td>
<td>17%</td>
<td>55%</td>
<td>3.2</td>
</tr>
<tr>
<td>Challenging/nontransparent contracting and tenders</td>
<td>17%</td>
<td>54%</td>
<td>3.1</td>
</tr>
<tr>
<td>Compliance challenges</td>
<td>19%</td>
<td>51%</td>
<td>3.1</td>
</tr>
<tr>
<td>Talent issues (e.g., recruitment, development, and retention)</td>
<td>17%</td>
<td>48%</td>
<td>3.0</td>
</tr>
<tr>
<td>Price pressure</td>
<td>17%</td>
<td>46%</td>
<td>3.1</td>
</tr>
<tr>
<td>Lack of IP protection</td>
<td>17%</td>
<td>35%</td>
<td>2.7</td>
</tr>
<tr>
<td>Lengthy product registration processes</td>
<td>17%</td>
<td>22%</td>
<td>2.5</td>
</tr>
<tr>
<td>Local competition</td>
<td>17%</td>
<td>17%</td>
<td>2.1</td>
</tr>
<tr>
<td>Regulatory requirements</td>
<td>17%</td>
<td>16%</td>
<td>2.4</td>
</tr>
<tr>
<td>Competition by multinationans</td>
<td>20%</td>
<td>12%</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
Collaborations with local NGOs and foundations foster basic healthcare developments, such as training programs for healthcare professionals, screening programs, and drug-distribution programs.

- In 2012, the United States Agency for International Development and MSD each invested $4 million in the newly launched Zambia Management and Leadership Academy. More than 360 healthcare managers have already been trained in the delivery of high-quality healthcare; a further 900 are expected by 2014.

- Pfizer partnered with the Lagos State University Teaching Hospital in Nigeria in 2012 and organized event-based patient education, which included instruction on the basic principles of blood pressure, weight, cholesterol levels, and sugar levels. The event reached more than 300 members of the community.

- MSD, Qiagen, and the government of Rwanda launched a comprehensive national cervical cancer prevention program in 2011. MSD provided more than 2 million doses of the vaccine Gardasil at no cost. In exchange, MSD was included in the publicly funded routine vaccination scheme.

- Qiagen supplied HPV tests to women between 35 and 45 years of age in Rwanda. There are plans to roll out similar initiatives in other developing countries.

and quality of medical care, lead to caution among pharmaceutical executives with regard to longer-term investment in local infrastructures. Instead, they seem to prefer working with local distributors (49 percent).

- Forty-three percent of respondents feel that price reductions help to address issues of affordability and “social responsibility.”

African markets require tailored approaches. Executives are reluctant to follow a long-term investment strategy in these markets, and in a reflection of their skepticism, they prefer flexible solutions and commit themselves only for the short term.

- During the next five to 10 years, a clear majority of survey respondents do not expect to employ the same market approaches in Africa that they favor in mature markets (see Exhibit 23, page 56).
Africa is vast, with a massive population across 54 highly diverse markets that pose many basic challenges, such as a lack of healthcare infrastructure and affordability. Thus, few pharmaceutical companies are currently prepared to commit themselves to significant investments in local infrastructure. Instead, a pragmatic partnering approach involving local NGOs, governments, and distributors is preferred and will continue to be the most common strategy during the next five years.

**Exhibit 22**
**Levers for success in Africa**

Which levers or strategies do you consider as most impactful for commercial success in Africa?

Top four levers, in percentage of respondents

- **Collaboration with local NGOs, foundations, and associations**: 54%
- **Distribution via local distributors/wholesalers**: 49%
- **Price reductions to gain greater access**: 43%
- **Close collaboration with governments**: 42%
Exhibit 23
Go-to-market approaches in Africa vs. mature markets

Do you expect pharma companies to apply similar go-to-market models in African markets as in mature markets during the next five to 10 years?

Majority agree on high likelihood of similarity

Respondents divided

Majority agree on low likelihood of similarity

Source: Strategy& analysis
V. Finding the right operating model and the right talent to support it

This study has so far reviewed what respondents believe to be the most promising strategies across emerging markets, and a clear picture has emerged:

- With regard to BRICMT countries, the majority of respondents agree that it makes sense to localize certain functions, including R&D, manufacturing, market access, and marketing and sales.

- In second-tier markets, a large number of study participants favor cooperation with local distributors and governments, as well as price reductions.

- Our interviewees see Africa, and especially the sub-Saharan countries, as a longer-term opportunity. Their approaches focus on local partnerships and only limited investment in building local infrastructure.

Regardless of which go-to-market strategies companies choose to implement, there are two main internal questions:

- Which governance model allows the company to manage emerging markets most effectively?

- How can companies recruit, train, and retain the best talent in emerging markets?

It is essential to empower regional and local offices.

We distinguish among three archetypical governance models (see Exhibit 24, next page) defined by varying interaction and “balances of power” at global, regional, and local levels:

- “Strong regionalization with empowered regional headquarters”: Regional offices are the main drivers of local decisions.
Exhibit 24
Effectiveness of regional organization and management setups

Which regional organization and management setup do you consider as key enablers for success in emerging markets? Why?

1 = least effective  5 = most effective

Average score given by participants

- Strong regionalization of the business with empowered regional HQ: 3.8
- Strong localization of the business with empowered local subsidiaries: 3.4
- Strong regional guidance from global HQ: 2.5

Source: Strategy& analysis
“Strong localization with empowered local subsidiaries”: Local affiliates are enfranchised to decide autonomously on the majority of issues, with only limited guidance from global and/or regional headquarters.

“Strong regional guidance from global headquarters”: The global headquarters, typically located in a mature market, is the key driver of local decisions.

Most pharmaceutical leaders consider the “strong regionalization” model to be the most effective.

It appears that many respondents associate proximity to local operations with a guarantee of “better” and more effective management decisions. This finding is supported by comments from respondents: “You have to be present in the region to understand the dynamics in emerging markets and to really be able not only to follow market development, but even to invest ‘ahead’ of the market by building local infrastructure and shaping health policy. Though this is a risky approach, it often works out and allows you to secure a significant market share — long term!” Another survey participant considers a “centralizing approach” the biggest mistake a company can make in this context, as it does not allow any tailoring of approaches to local/regional needs (see Exhibit 1, page 11).

In practice, boundaries between the three archetypes are often blurred. Yet, different philosophies can be observed across pharmaceutical companies:

- At Pfizer, emerging markets and established products are set up as a business unit with headquarters in the United States and a limited number of regional offices. Hence, the global influence on affiliates is considered to be quite strong compared to that of other pharmaceutical companies.

- At MSD, the various emerging markets are broken into several country clusters with each regional headquarters in Switzerland. However, the company’s management is continuously “on tour” across emerging markets.

- Roche’s commercial organization includes three emerging-market regions, two of which are headquartered in their respective regions (Latin America and Asia-Pacific). The third (Europe, the Middle East, and Africa) has its main office in Switzerland but is supported by local head offices in subregions.
At Bayer, the regional headquarters for emerging markets are all located in the regions, with strong local influence. China was granted a regional status comparable to that of the United States. Recognizing the disproportional relevance of emerging markets for primary-care products, and the necessity to be close to the markets, Bayer even relocated its primary-care business unit to Beijing in 2011.

In the future, we expect to see more companies act like Bayer, with a power shift from global headquarters to stronger regional organizations. “Companies that want to stay innovative have to move toward leaner headquarters and smaller central functions,” Franz Humer, chairman of the board at Roche, stated (according to Scrip Intelligence, December 21, 2012). They need to trust their regional offices “to run their business” and “get away from the notion that headquarters knows best.”

Talent management is key in emerging markets

As companies evolve their governance models, they must address the challenge of how to recruit, develop, and maintain local talent. “In my 15 years of experience in emerging markets, it’s the number one issue,” one survey participant reported. With an increasing number of international organizations turning to emerging markets to fuel their growth, the demand for the limited supply of talent has driven an increase in employee turnover rates. In BRICMT markets, for example, turnover rates are now in the double digits, as talent is poached by competitors with promises of higher salaries.

As a consequence, retaining talent is seen as the greatest human relations challenge in emerging markets. On a scale from 1 (least relevant) to 5 (most relevant), survey participants gave this issue an average score of 4.2 (see Exhibit 25, next page), followed by recruiting talent (3.6). By contrast, developing talent (3.3) and maintaining a consistent corporate culture (3.2) are seen as slightly less of a problem.
Exhibit 25
HR challenges in emerging markets

What are the greatest HR challenges in emerging markets?
1 = least relevant  5 = most relevant
Average score given by participants

- Retaining talent: 4.2
- Recruiting talent: 3.6
- Developing talent: 3.3
- Maintaining a consistent corporate culture: 3.2
Executives consider local talent management to be far and away the most promising way to develop a stable local workforce (see Exhibit 26, next page). As an example, at AstraZeneca Asia-Pacific, 88 percent of the leading executives on local management teams are from the respective local markets, while 91 percent are from the region. Knowledge of the local market seems to provide the “critical insight” needed to build longer-term commitment and development of skilled employees.

It is important to note that though this approach may sound simple, it actually requires a series of local solutions, including the following:

• Recruitment at local universities
• Development of talent through systematic training
• Training tailored to the specific regional requirements
• In addition, the strategic location of facilities can serve as a lever to gain greater access to skilled local talent.

Leveraging expatriates from other markets is considered to be a less powerful tool (average score of 3.3). Employing distributors’ talent and capabilities is regarded as the least effective strategy by far (2.5).
**Exhibit 26**
**HR strategies in emerging markets**

What HR/talent management strategies do you consider to be most effective in emerging markets?

1 = least effective 5 = most effective

Average score given by participants

- **Effective local talent management, by developing talent in the market**: 4.2
- **Effective global talent management, by getting talent from other markets (expatriates)**: 3.3
- **Leveraging distributors’ talent and capabilities**: 2.5

*Source: Strategy& analysis*
VI. Successful players and conclusions

*Why Sanofi and Novartis are considered front-runners in emerging markets*

Our survey has shown that there is no one-size-fits-all solution for building pharmaceutical business in emerging markets. Instead, go-to-market approaches need to be tailored to the specifics of each market and company. In this context, we have asked survey participants which companies they perceive to be market leaders with respect to their success and degree of innovation in emerging markets.

- Exhibit 27, page 67, indicates that Novartis and Sanofi are perceived to be particularly successful and innovative.

- This perception corresponds with their leading positions in terms of sales in emerging markets. As per moving annual total (MAT) for the third quarter of 2011, Sanofi generated $6.7 billion and Novartis $5.8 billion, making them the two largest multinational corporations in emerging markets. With their respective local growth rates of 13.6 percent (Sanofi) and 8 percent (Novartis), they are also two of the fastest-growing companies.

- The success of these two companies may be attributed to the fact that they have made emerging markets a priority and devised specific, tailored approaches:

  - Emerging markets are one of Sanofi’s four strategic platforms, and the company follows a strict localization strategy. It was running a wide network of 48 industrial sites as of December 2011 and has established a commercial presence in about 100 emerging markets. “Early on, when building their presence in emerging markets, they tailored their approach to local needs and customers. They also did not shy away from developing ‘new’

1 MAT Q3 2011 at ex-manufacturer prices, according to IMS Health.
approaches in emerging markets,” one participant said. Management is now reaping the rewards: Based on its sales, Sanofi maintains a leading position in most emerging markets — number one in Africa and the Middle East, number two in Central and Eastern Europe, number two in Latin America, and number four in Asia.

– Novartis is also heavily investing in emerging markets, which is demonstrated by the company’s regional distribution of R&D activities. As outlined in Chapter III, emerging markets already account for two-thirds of the company’s global clinical trial activities.

Independent of individual success examples, our study reveals a number of key similarities in how pharmaceutical executives approach emerging markets:

– The majority of executives have a clear focus on top-line growth and geographic expansion.

– Multinational corporations are confident that they can be successful by primarily using their own global products.

– However, partnerships can be a promising add-on in second-tier and African markets.

– Market access is the key challenge in all emerging markets.

– Building mutually beneficial relationships with local governments is indispensable for success and helps companies to invest ahead of the markets.

– It is no longer sufficient for executives to limit their activities to simply selling their products in emerging markets. A clear trend toward localization has become evident. At least for the most important markets, companies must create a local footprint, which in some cases should include R&D and manufacturing capabilities.

– It is a widely shared view that regional structures are best suited to manage emerging markets.

– Developing and maintaining local talent is critical for success.

Each company needs to tailor its approach to its specific situation and needs. Many executives already have an appreciation for the complexity
of this task. Leaders also need to evaluate their approaches regularly, since local conditions can change swiftly. Just look to the transformed political landscape of North Africa for evidence.

Even amid all this change, executives must exercise patience. In less sophisticated markets, results do not happen overnight. Companies wishing to exploit emerging markets, and particularly Africa, need to be in the game for the long term. Overly optimistic expectations and short planning horizons are among the biggest mistakes that companies can make.

Dipping in and out of such markets is a recipe for failure; local governments will be unforgiving of the inconsistent while supportive of those companies that demonstrate commitment and an interest in the good of the local market. The winners will be executives who thoroughly understand the challenges of their markets and define smart goals and levers that allow for flexibility. They will reap the rewards — not necessarily in the short term but certainly on a sustainable, long-term basis.
### Exhibit 27
Perceived success and innovation of pharmaceutical companies in emerging markets

Which pharmaceutical companies do you consider most successful/innovative in the emerging markets?

Percentage of participants selecting success/innovation

**Perceived success**

<table>
<thead>
<tr>
<th>Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novartis</td>
<td>21%</td>
</tr>
<tr>
<td>Sanofi</td>
<td>15%</td>
</tr>
<tr>
<td>GSK</td>
<td>15%</td>
</tr>
<tr>
<td>Roche</td>
<td>13%</td>
</tr>
<tr>
<td>Pfizer</td>
<td>12%</td>
</tr>
<tr>
<td>MSD</td>
<td>10%</td>
</tr>
<tr>
<td>J&amp;J</td>
<td>8%</td>
</tr>
<tr>
<td>Teva</td>
<td>6%</td>
</tr>
<tr>
<td>Bayer</td>
<td>6%</td>
</tr>
<tr>
<td>Abbott</td>
<td>6%</td>
</tr>
<tr>
<td>Sandoz</td>
<td>4%</td>
</tr>
<tr>
<td>AstraZeneca</td>
<td>4%</td>
</tr>
<tr>
<td>Novo Nordisk</td>
<td>2%</td>
</tr>
<tr>
<td>Takeda</td>
<td>2%</td>
</tr>
<tr>
<td>Eli Lilly</td>
<td>0%</td>
</tr>
<tr>
<td>Mylan</td>
<td>0%</td>
</tr>
<tr>
<td>Stada</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Perceived innovation**

<table>
<thead>
<tr>
<th>Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanofi</td>
<td>27%</td>
</tr>
<tr>
<td>Pfizer</td>
<td>21%</td>
</tr>
<tr>
<td>GSK</td>
<td>19%</td>
</tr>
<tr>
<td>Sandoz</td>
<td>17%</td>
</tr>
<tr>
<td>Roche</td>
<td>15%</td>
</tr>
<tr>
<td>Teva</td>
<td>15%</td>
</tr>
<tr>
<td>Bayer</td>
<td>10%</td>
</tr>
<tr>
<td>MSD</td>
<td>8%</td>
</tr>
<tr>
<td>AstraZeneca</td>
<td>8%</td>
</tr>
<tr>
<td>J&amp;J</td>
<td>8%</td>
</tr>
<tr>
<td>Eli Lilly</td>
<td>4%</td>
</tr>
<tr>
<td>Abbott</td>
<td>4%</td>
</tr>
<tr>
<td>Mylan</td>
<td>4%</td>
</tr>
<tr>
<td>Stada</td>
<td>2%</td>
</tr>
<tr>
<td>Novo Nordisk</td>
<td>2%</td>
</tr>
<tr>
<td>Takeda</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
Strategy& is a global team of practical strategists committed to helping you seize essential advantage.

We do that by working alongside you to solve your toughest problems and helping you capture your greatest opportunities.

These are complex and high-stakes undertakings — often game-changing transformations. We bring 100 years of strategy consulting experience and the unrivaled industry and functional capabilities of the PwC network to the task. Whether you’re charting your corporate strategy, transforming a function or business unit, or building critical capabilities, we’ll help you create the value you’re looking for with speed, confidence, and impact.

We are part of the PwC network of firms in 157 countries with more than 195,000 people committed to delivering quality in assurance, tax, and advisory services. Tell us what matters to you and find out more by visiting us at strategyand.pwc.com.

This report was originally published by Booz & Company in 2013.

www.strategyand.pwc.com

© 2013 PwC. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details. Disclaimer: This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors.