Growing Beyond

Innovating for the next three billion

The rise of the global middle class – and how to capitalize on it

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Introduction

A ta time when major developed markets are struggling to sustain an economic recovery, it is easy to forget that opportunities abound in other parts of the world. Rapidgrowth markets in Africa, Asia, Eastern Europe, Latin America and the Middle East continue to expand rapidly and play an increasingly dominant role in the global economy. Many of these economies are becoming major hubs of entrepreneurship, innovation and trade, as well as investment from multinationals from around the world.

Until recently, growth in these markets was dominated by investment, infrastructure and exports, but in the next decade, it is likely this picture will start to change. Major rapid-growth markets will start to steer their economies away from a dependence on exports toward a model of increased private consumption. Although not rich by the standards of developed countries, a huge middle class is already saving less and spending more, creating big opportunities for companies that can serve them with relevant products and services.

These markets are vast. The middle class in Asia alone currently numbers some 525 million people, greater than the population of the entire European Union. Between now and 2030, an additional three billion people globally will enter this income bracket. Over the longer term, this explosion of spending power has the potential to make a significant contribution to a sustained global economic recovery and unwind long-standing economic imbalances between West and East. We believe that this emerging demographic, which we call the next three billion, offers companies a rare and highly valuable opportunity to seize a new market of unprecedented size by thinking differently about how they innovate. Although the emergence of this demographic is still at an early stage, companies must act now to create attractive products and services, establish a presence, and build market share and scale. Those that can sustain both a long-term commitment and the ability to innovate for the next three billion will be well positioned as this market swells in the next 20 years.

In this report, we examine the emergence of the next three billion and explore the capabilities that companies must build to align their businesses with the needs of this demographic. The report forms part of Growing Beyond, an ongoing Ernst & Young program that explores how companies can grow more quickly by expanding into new markets, finding new ways to innovate and implementing new approaches to talent.

Maria T. Pinelli Global Vice Chair Strategic Growth Markets Ernst & Young Executive summary

The rise of the global middle class – and how to capitalize on it

Between now and 2030, the number of people in the global middle Class will grow from 1.8 billion to 4.9 billion.¹ The vast majority of these three billion new consumers, with daily expenditure of between US\$10 and US\$100, will live in Asia and other rapid-growth markets. Although the majority of these consumers will have expenditure at the lower end of this spectrum and therefore will not be considered middle class by the standards of developed economies, this vast cohort nevertheless has considerable spending power. Between 2009 and 2030, demand from the global middle class could grow from US\$21 trillion to US\$56 trillion.²

Against a backdrop of sluggish growth in developed markets, this explosion of new purchasing power is good news for the global economy and the growth prospects of the world's multinational companies. A rise in private consumption among the middle class, particularly in rapid-growth markets, will help to rebalance the global economy and create a vital new revenue stream for companies across a wide range of sectors.

Yet capitalizing on demand from the next three billion will not be straightforward. Many companies will need to rethink their product and service offerings to ensure that these offerings are tailored to the needs of this vast customer base. In the past, developed-world companies would typically take premium products that sold well in their home market and either sell them unchanged in rapid-growth markets or strip them down to make them more affordable. Neither approach was satisfactory. Premium products may have sold well to the elites in rapid-growth markets, but they were often irrelevant for the vast proportion of the population on lower incomes. And stripped-down products may have been more affordable, but they were not sufficiently tailored to meet the specific needs of local customers.

Reaching the next three billion will require companies to understand the unmet needs of the new middle-income customers and to create entirely new products and services to fulfill them. This will mean thinking differently about every stage in the product development process. Strong R&D capabilities will be important, but so too will be innovative business models, deep customer insight, and a culture and a mindset that support innovation.

The aim of our report, which is based on a survey of 547 executives from around the world and in-depth interviews with some of the world's leading entrepreneurs, senior executives and thinkers, is to examine the capabilities necessary to innovate for the next three billion. We explore the scale of the opportunity and look at the approaches that companies are taking to develop affordable products that meet the needs of customers on lower incomes. We conclude with a model we feel describes the necessary capabilities for companies seeking to target the next three billion consumers.

Key findings of this research include the following:



Innovating for the next three billion is a major opportunity, but companies are realistic about the challenges. There is a widespread consensus that innovation in rapid-growth markets represents an important opportunity for growth. Slightly more than one-third of respondents to our survey say that they are already reaping rewards from a more "frugal" approach to innovation, while a further 40% plan to do so. Companies with higher-than-average EBITDA growth are particularly likely to be focusing on this opportunity. But respondents are also realistic about the challenges ahead. Many admit that it will be difficult to make these innovations profitable, while others are concerned about the extent of existing competition.

Deep customer insight and organizational agility are key to meeting

the needs of the next three billion. An understanding of the needs of local customers is the most important contributor to successful innovation in rapid-growth markets. To solve the unmet needs of the next three billion, leading innovators spend time observing them to spot potential opportunities. They also give autonomy to local managers to roll out new products and services, and ensure that a significant proportion of R&D takes place close to end customers.

Companies must balance the need for local customization with global scale. Economies of scale are vital to bringing down the cost of innovating for the next three billion and ensuring that it is profitable. Global innovation networks that enable resources and intellectual property to be applied across regions can be a vital channel to share intellectual property with other markets. Some companies focus on developing global "platform technologies" that can be combined with local elements to make them relevant in each market.

Low-cost innovations are not just for rapid-growth markets.

Companies that innovate for customers in rapid-growth markets should consider how they can take those ideas and apply them in developed economies. As living standards between developed and rapid-growth markets converge, and as companies seek new efficiencies in their operations and innovation processes, innovations designed with rapidgrowth markets in mind will become increasingly valued globally as a source of competitive advantage.

Successful innovation in rapid-growth markets goes far beyond R&D. Creating products and services that are affordable for the next three billion requires companies to draw upon a broad range of capabilities. R&D is important, but it is just one piece of the innovation puzzle. To meet the requirements of quality, affordability and access, companies should be prepared to rethink their entire business and operating models. They should build new relationships with stakeholders across the supply chain, seek out new distribution channels, and develop an intense focus on operational excellence to bring down costs and increase efficiency.

Local companies have the upper hand in serving lower-income customers, but multinationals are gaining ground. Companies headquartered in rapid-growth markets currently have the upper hand in serving lower-income customers. They have deep local knowledge and insight into customer needs, and are accustomed to operating in an environment where constraints encourage creative problemsolving. But companies from developed markets are keen to catch up by applying their strengths of global resources and capabilities, a process-oriented approach and strong brands.

Footnotes

- 1. Homi Kharas, *The emerging middle class in developing countries*, Working Paper No. 285, OECD Development Centre, January 2010.
- 2. Ibid.

Acknowledgements

We conducted a series of interviews with some of the world's leading entrepreneurs, senior executives and thinkers to explore the different approaches to innovation in rapid-growth and developed markets.



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About this report

The findings for this report are drawn from two studies conducted in September 2011. An online survey of 547 C-suite executives, board directors and senior managers in rapid-growth markets was conducted by the Economist Intelligence Unit and supported by a series of in-depth interviews with senior executives and leading thinkers. We surveyed developed market companies with rapid-growth market operations and rapid-growth market companies in Brazil, Russia, India, China, Mexico, Turkey, Indonesia and South Korea. Half of the companies surveyed have more than US\$1b in revenue, and 70% report EBITDA growth in excess of 5% for the last year.



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Section 1: An unparalleled opportunity

Over the next 20 years, global economic trends will completely transform the customer base for most industries. Rising per capita incomes, favorable demographics and continuing economic growth are creating massive growth in the numbers of the global middle class. By 2030, there will be an additional three billion people joining this cohort, and most of them will live in Asia.

The numbers are staggering. In 2000, only 10% of spending by the global middle class took place in Asia. By 2030, this proportion could rise to 40% (see Chart 1). In 2009, the middle class in Asia-Pacific spent just under US\$5 trillion. By 2030, this figure could rise to almost US\$33 trillion,³ according to the Organisation for Economic Co-operation and Development (OECD).

The next three billion consumers are growing in confidence as well as purchasing power. In the Emerging Consumer Survey, which Credit Suisse published in January 2011, they found that 38% of consumers in the emerging markets expected an improvement in their personal finances over the next six months.⁴ This will inevitably feed through into higher rates of consumption as populations save less and spend more. And as spending capacity grows, the share of expenditure consumed by essential items, such as food and heating, will fall, while the population will spend more on higher-value items, such as household appliances, cars and electronic goods. In 2004, for example, General Motors sold 1 car in China for every 10 it sold in the United States. By 2009, this ratio had reached one to one.⁵

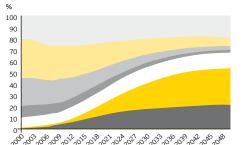


Chart 1: Shares of global middle class consumption, 2000-50

"There is tremendous potential for rapidgrowth economies to increase their level of consumption," says Rain Newton-Smith, Head of Emerging Markets at Oxford Economics. "We can see this already happening through changing trade patterns, with a flow of higherend consumer goods to the region. But we expect this trend to deepen as wages increase, as the financial services sector becomes more sophisticated and as a higher proportion of the population moves to urban areas."



Others

Source: Homi Kharas, The emerging middle class in developing countries, Working Paper No. 285, OECD Development Centre, January 2010

Footnotes

- Homi Kharas, The emerging middle class in developing countries, Working Paper No. 285, OECD Development Centre, January 2010.
- 4. Emerging Consumer Survey 2011, Credit Suisse Research Institute, January 2011.
- Homi Kharas, The emerging middle class in developing countries, Working Paper No. 285, OECD Development Centre, January 2010.

"The new consumer does not have to adjust to the market. If you want to sell, *you* have to adjust."

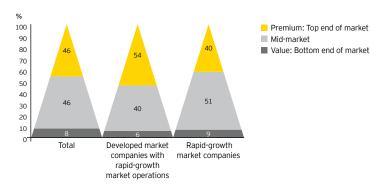
Daniel Mendez, President of Sapore

A mismatch in the offering

Yet many companies have been slow to capitalize on this emerging demographic. Although rapid-growth markets account for 80% of the global population and 50% of global GDP at purchasing power parity, the average S&P 500 company earns just 10% of its revenues from these economies.⁶

There are various reasons for this mismatch. One is that some rapid-growth markets remain difficult places to do business, serving up tough regulations or heavy bureaucracy. But a bigger issue is often a misalignment between the product and service offerings of developed-world multinationals and the spending power and practices of customers in rapid-growth markets. In our survey, 54% of companies from developed economies focus on the premium end of the market in their main high-growth markets. And even among rapid-growth market companies, the proportion that focuses on this slice is as high as 40%. By contrast, just 6% of developedmarket companies - and only 9% of rapidgrowth market firms – target the bottom end of the market (see Chart 2).

Chart 2: How businesses approach pricing in rapid-growth markets How do you typically price your products or services in relation to competitors in your main rapid-growth markets?



This pattern of allocation is very different from the reality of income distributions in most rapid-growth markets. In China, for example, just 0.3% of households earn more than US\$50,000 a year, and only 17.5% earn more than US\$10,000 annually.⁷ In India, these figures are 0.2% and 13.2%, respectively. In other words, many companies, regardless of market, are missing a significant and increasingly important opportunity in developing economies. To bring products and services in line with the income distribution in rapid-growth markets requires a fundamental rethinking of innovation and go-to-market strategies. Rather than focus exclusively on the admittedly lucrative premium end of the market, companies need to create products and services that meet the unmet needs of the next three billion consumers.

Footnotes

- www.innosight.com/innovation_resources/ article.html?id=895.
- 7. Economist Intelligence Unit's Data Tool.

"Increased private consumption in many rapidgrowth markets will play an important role in rebalancing the economy and creating a strong, sustainable recovery around the world."

John Murphy, Global Markets Leader at Ernst & Young

Stripping out features from existing products will not work, because, by definition, the products have not been designed with the target audience in mind. Instead, companies must identify challenges and create innovative solutions that are both affordable and relevant to the local market and environmental conditions. "You have to understand the local market needs and develop products that are not only going to help consumers to improve their lives but that also fall within their purchasing capability," says Jeff Weedman, Vice President for Global Business Development at Procter & Gamble.

A new generation of frugal innovators

Recent years have seen a number of highprofile innovations that target middle- and lower-income customers in rapid-growth markets. Launched in 2009, the low-cost Tata Nano car is probably the best-known example. Tata's goal was to create a car that would sell for INR100,000, or around US\$2,500, which is much cheaper than any other production car in the world. To bring down costs, Tata reengineered parts to save weight, reconfigured assembly methods and developed a complex network of third-party suppliers to increase efficiency. Although there have been teething problems with the Nano since it was launched, there is no doubt that this was a breakthrough innovation.

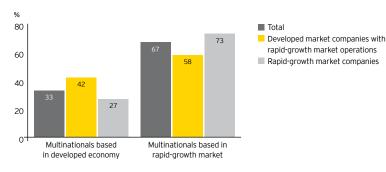
Other examples of innovation for middle- and lower-income customers include the following:

- The Chinese company BYD has developed a very low-cost method for producing lithium-ion batteries. The company has reduced the cost of a battery from US\$40 to less than US\$5.
- China's Zhongxing Medical has developed an X-ray machine that can produce digital images directly. It costs just one-tenth of the price Western multinationals charge for their specialized digital X-ray machines.
- GE, the US industrial giant, has produced a handheld electrocardiogram machine that costs a fraction of traditional EKGs. This innovative device has brought down the cost of testing a patient to just US\$1.
- The Indian industrial group Godrej & Boyce has developed a US\$69 fridge that runs on batteries, called the ChotuKool.
- India's Tata Chemicals has developed a water purifier that uses a combination of rice husks and silver nanotechnology to filter out bacteria. The Tata Swach costs just US\$20.
- Bharti Airtel, an Indian telecom company, has turned itself into one of the world's most cost-efficient mobile service provider by creating innovative partnerships with suppliers and by sharing the costs of infrastructure with competitors.
- The Finnish telecom company Nokia has produced a handset that costs less than US\$20. Its features include a dust-resistant case and a contacts book that can be used by up to five users, because many lowincome customers share a phone.

"The emerging middle class is the number one driver of innovation among multinationals in rapid-growth markets. To succeed, companies will need to think about how to fulfill unmet needs and create entirely new business models as well as product innovations."

> Andrea Vogel, EMEIA Strategic Growth Markets Area Leader at Ernst & Young

Chart 3: Which multinationals are best placed for generating frugal innovation? In general, which of the following categories of company do you think has the advantage in generating frugal innovations?



As this list demonstrates, many of the companies that are leading the way with innovation in rapid-growth markets are headquartered in rapid-growth markets. This is no coincidence. Among our survey respondents, two-thirds think that, in general, multinationals based in rapid-growth markets have an advantage in generating frugal innovations (see Chart 3).

Eloi D'Ávila de Oliveira, President of Flytour, a Brazilian travel agency, thinks that rapidgrowth market companies benefit from being more agile. "They have strong local relationships and, unlike multinationals from developed markets, they do not have a board of directors thousands of miles away to whom they are accountable," he says. "That means that they can respond with the speed that the market requires." Ernesto Vidal, CEO of Ingenia Muebles, a low-cost furniture chain based in Mexico, cites rapid decision-making and a quick response to customer demands as important advantages. "We listen to the customer and react quickly to any new opportunities or problems," he says.

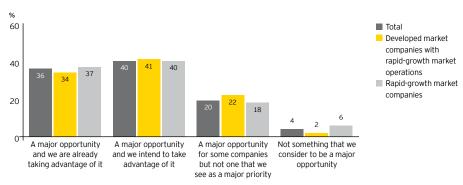
A willingness to improvise in the face of constraints can also be a powerful advantage. Companies in rapid-growth markets have long operated in a business environment where they face a shortage of resources, poor infrastructure and a volatile macroeconomic environment. These constraints have forced them to be highly creative in their approach to problem-solving and accustomed to developing ingenious workarounds to overcome obstacles. "Running a business during years of volatility has given us the ability to adapt and come up with a new plan quickly," says Mr. Oliveira. "Running a business during years of volatility has given us the ability to adapt and come up with a new plan quickly."

> Eloi D'Ávila de Oliveira, President of Flytour

Companies from rapid-growth economies may currently dominate local innovation, but developed-market multinationals are keen to make up lost ground. Overall, more than three-quarters of our respondents think that adopting frugal innovation to create products and services is a major opportunity (see Chart 4). And the number of developedmarket companies that see this as an opportunity is almost identical to the number from rapid-growth markets.

Chart 4: Finding opportunity in frugal innovation

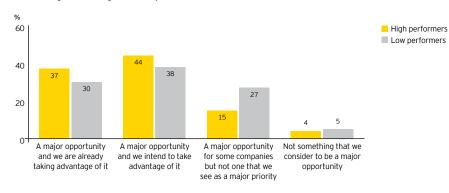
Please complete the following sentence based on the statement that best describes your company's view on the opportunities for frugal innovation in rapid-growth markets. "Adopting frugal innovation to create products and services is..."



It is also striking that companies in the survey with higher-than-average EBITDA growth seem more likely to recognize the scale of the opportunity. Overall, 81% of the high performers think frugal innovation is a major opportunity, compared with 68% of those with lower EBITDA growth (see Chart 5).

Chart 5: Companies finding opportunity in frugal innovation

Please complete the following sentence based on the statement that best describes your company's view on the opportunities for frugal innovation in rapid-growth markets. "Adopting frugal innovation to create products and services is ..." EBITDA growth: high vs low performance



Reaching a new customer base at Tata Chemicals

When India's Tata Group launched the Swach water purifier in 2009, it was praised as a textbook example of innovating for lower-income customers. Although there have been water purifiers on the market for many years, take-up of these devices has been very low. In India, for example, penetration of water purifiers in rural areas, where the risks of waterborne disease are greatest, is less than 1%. The main barrier to adoption has been price – ultraviolet water purifiers can cost more than INR5,000 (US\$102), which is far beyond the means of most rural dwellers. Many devices also require running water and electricity, which may not be available everywhere.

At a price of less than INR1,000 (US\$20), the Tata Swach was introduced as a highly cost-effective alternative to existing purifiers. Unlike many other devices, it needs no running water or electricity to operate, which means it can be used in the most remote rural locations. Its replaceable filters are capable of purifying about 3,000 liters of water, or enough for a family of five over a period of 6 to 8 months.

Although the Swach is manufactured and sold by Tata Chemicals, several companies from across the Tata Group took part in its development. The software company Tata Consultancy Services (TCS) developed the original version of the Swach as a corporate social responsibility initiative. In the wake of the Gujarat earthquake of 2001, TCS distributed 50,000 filters to villages affected by the disaster. But in 2006, the project got a boost when R. Gopalakrishnan, Director of Tata Sons, suggested that Tata Chemicals would be better placed to move the concept forward. "With its in-depth experience in chemical processing technologies, product development for a global market and consumer product businesses, Tata Chemicals was the ideal partner to take the project to the next stage," he explains.

The original device used rice husk ash as the active ingredient in the water purification process. But while effective, this did not meet international standards. So Tata Chemicals improved the purification performance by impregnating the ash with nano silver particles.

A further breakthrough came from another part of the Tata Group, Titan Watches. The engineers at Tata Chemicals discovered that the precision engineering used in watchmaking could also be applied in the manufacture of the Swach. "We suddenly had a product that came from the internal innovation skills across several different parts of the business," says Mr. Gopalakrishnan. "Titan earns revenues by selling more and more machines, while Tata Chemicals markets the product and undertakes the risk and reward."

Section 2: The four capabilities of innovation

nnovating for the next three billion will require companies to develop a set of key capabilities. Our research has identified four that are particularly important:

- 1. Customer insight
- 2. People and culture
- 3. Research and development
- 4. Operations and business model

Companies must build these capabilities at both a local and a global level. In the rest of this report, we look at these four key capabilities in detail and explain the interaction between the local and global layers. "Qualitative research is the most powerful way to gain genuine insight into your customers and understand what new products and services they might need."

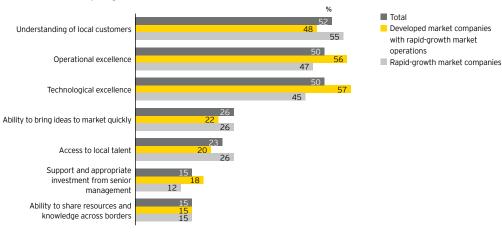
Mr. Sudhamek AWS, Chief Executive Officer of GarudaFood Group

1. Customer insight: building a market-specific approach

The development of any successful innovation requires companies to get close to their customers and understand the problem that needs to be solved. But in the case of the next three billion, this process will be particularly important. Asked about the key enablers of innovation, respondents point to an understanding of local customers as the most critical factor (see Chart 6). Companies from rapid-growth markets consider this capability to be especially important, whereas those from developed markets tend to consider technology and operational excellence to be more vital. "Western companies tend to place greater importance on process, while those that are based in a country like India tend to pay greater attention to culture," says R. Gopalakrishnan, Director of Tata Sons.

Chart 6: Most important enablers of innovation in rapid-growth markets

Which of the following capabilities are most important to enable innovation in rapid-growth markets?



"Global resources and capabilities are an important advantage for multinationals seeking to unlock the opportunities in rapid-growth markets. But these capabilities must also be combined with strong local knowledge and insight into customer needs."

James S. Turley, Chairman and CEO of Ernst & Young

Traditional analytical tools can play a role in giving companies basic information about customer demographics and opportunity, but many of those interviewed for this report are skeptical about their value, particularly in rapid-growth markets, where there may be a shortage of good-quality data. "Innovations to me are not about data and analysis, they are more about having a vision for a new product," says Maxim Nogotkov, President of the Svyaznoy group of companies.

A common characteristic of the next three billion is that they are non-consumers of a company's products – they have no history of buying something similar in the past. This makes analytical approaches to customer research, such as focus groups, difficult to apply, because there is no existing product to test. "The probability of successful frugal innovation coming out of an analytical process is very low because it is an unexpressed demand," says Mr. Gopalakrishnan.

The Indian company Godrej & Boyce offers a good example of a more intuitive approach. When it embarked on a project to develop a low-cost refrigerator, called the ChotuKool, its first step was to spend time with the villagers who were likely to be the product's target market. Researchers discovered that many rural families stored just a few food items at a time, which meant that conventional fridges were far too large for their needs. Another observation was that many villages had sporadic power supplies, which meant that food in traditional refrigerators was likely to spoil. Armed with this knowledge, the Godrej & Boyce design team was able to rethink radically the design for the appliance. It created a small, portable device that consumes half the energy of a conventional fridge and, at US\$69, costs considerably less to purchase. The ChotuKool also incorporates a battery that can be used to run the device in the event of a power outage. By spending time observing the customer base, Godrej engineers were able to identify their unmet needs and develop a product that was both more affordable and relevant than existing models.

Other entrepreneurs emphasize the importance of this approach. "Qualitative research is the most powerful way to gain genuine insight into your customers and understand what new products and services they might need," says Mr. Sudhamek, Chief Executive Officer of GarudaFood Group, an Indonesian food manufacturer.

R&D close to the customer

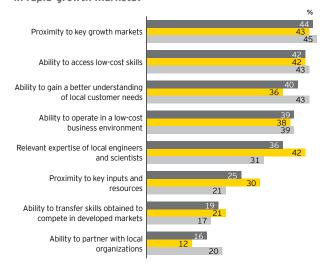
The need for proximity to local customers has encouraged a growing number of companies to locate R&D centers in countries such as China and India. On average, respondents say that 37% of their R&D currently takes place in rapid-growth markets. As companies feel more confident about the rule of law and protection of intellectual property in these markets, they are likely to allocate an even greater proportion in the future. "Western companies tend to place greater importance on process, while those that are based in a country like India tend to pay greater attention to culture."

R. Gopalakrishnan, Director of Tata Sons

The nature of this activity also seems to be changing. In the past, developed-market companies in particular set up R&D labs in rapid-growth markets for cost arbitrage purposes. But as skill levels have risen and as these markets have become increasingly important to overall growth prospects, this rationale is becoming less important. Although the ability to access low-cost skills is still the second most important reason for conducting R&D in rapid-growth markets, it trails behind proximity to key growth markets as the leading factor (see Chart 7). But local R&D is just one part of the solution. As well as developing products locally, companies need to give authority and profit and loss (P&L) responsibility to business units on the ground so that they can make decisions over which products and services to develop or scale. "You have to give local managers autonomy," says Vijay Govindarajan, Earl C. Daum 1924 Professor of International Business at the Tuck School of Business, Dartmouth College. "If you need your local people to come to the head office for approval for everything, then you will not move quickly enough to take advantage of opportunities."

Chart 7: Reasons for conducting R&D in rapid-growth markets

What might be the main reasons for conducting R&D in rapid-growth markets?





"The main advantage for multinationals is that they have global resources and capabilities. But they must apply these efficiently and be willing to adapt their approach to the local customer."

Luiz Enrique Almeida, CEO of Regina Festas

2. People and culture: learning the new and unlearning the old

Focusing innovation efforts on the middle class in rapid-growth markets may make sense as a concept, but there can be cultural barriers to product acceptance. Developed-market companies in particular are accustomed to thinking of innovation as a means to add sophistication and features to products rather than making them more streamlined and affordable. Professor Govindarajan says that companies from the developed world often suffer from what he calls "the tyranny of the dominant logic." He explains, "They grew up in a world where they were creating products for rich-world customers, and their view of the world is based on that foundation."

Simply taking products from the developed world and hoping that customers in rapidgrowth economies will buy them is unlikely to be effective. Instead, companies need to adopt a culture and mindset that are willing to tailor products to customers' needs. "The new consumer does not have to adjust to the market," says Daniel Mendez, President of Sapore, a Brazilian corporate meals company. "If you want to sell, you have to adjust."

Another common concern is that low-cost innovations developed for rapid-growth market customers will "cannibalize" the sales of more expensive premium products. But as Professor Govindarajan explains, this fear is misplaced. "Although there is a cost associated with cannibalization, there is a much greater risk if you don't innovate in these markets because your competitors will do it anyway," he says. "Moreover, lowercost innovation opportunities create new consumption and demand, so the slice of the pie is much bigger when you take into account the sales revenue from both the lower-priced products and the premium ones." Input from senior leadership is essential to overcoming these misgivings. The Tata Group, for example, has created the Tata Group Innovation Forum (TGIF), a panel of 12 senior executives from across the business, which aims to foster a culture of innovation across the Group. It has also implemented an "InnoMeter" that measures innovation capabilities and encourages interventions to create a more innovationfriendly culture. "Just like a thermometer, the InnoMeter enables us to understand how departments are performing and gives us an opportunity to nurture new ways of developing innovative ideas across the Group," says Mr. Gopalakrishnan, who chairs the TGIF.

Cross-fertilization of talent from one R&D center to another can also help to foster a more unified innovation culture. At Xerox, for example, a program called "crossovers" enables researchers to gain experience in different labs around the world and acquire insight into customer requirements. "This program helps our researchers to understand the local geography and customer, and, equally importantly, it helps the company to strengthen the human fabric between the different research organizations and build a global innovation network," says Dr. Meera Sampath, Director of the Xerox Research Centre India. "Globally integrated R&D will be a crucial driver of successful innovation in rapid-growth markets. Companies need to ensure they can share resources, talent and intellectual property across different R&D centers so that local relevance can be combined with global scale."

> Herb Engert, Americas Strategic Growth Markets Area Leader, Ernst & Young

3. Research and development: conduct and share R&D internationally

Innovating for the next three billion will require companies to gain insight into local customer needs and to develop products and services that meet the needs of individual markets. But a purely local approach to innovation is both inefficient and expensive. Companies must therefore strike a careful balance between local relevance and global scale.

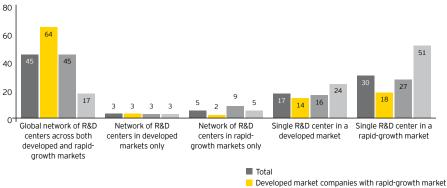
A global network of R&D centers enables companies to leverage global resources and reapply innovation across multiple markets. At Xerox, for example, a polycentric approach to innovation means that the best aspects of local and global are combined. The company's researchers engage closely with local customers in a particular market, but collaborate with teams in other markets to see how innovations developed with one set of customers in mind can be reapplied elsewhere. "We try to look at fundamental technologies that can apply across a broad range of products and services in different regions," says Dr. Sampath. "I like to think that what we do is create locally inspired but globally relevant technology."

Procter & Gamble adopts a similar approach. Mr Weedman describes how the company is developing a set of "platform technologies" that have global relevance and can be combined with local components or packaging to create customized offerings. For example, a broad need such as "odor control" can be applied globally, but combined with fragrances in cleaning products that suit local preferences.

In total, 45% of respondents say that innovation in their company takes place across a global network of R&D centers. But this approach is considerably more widespread in companies headquartered in developed markets (see Chart 8). In the longer term, companies from rapid-growth markets would be well advised to build this capability to ensure that they can remain competitive. "The main advantage for multinationals is that they have global resources and capabilities," says Luiz Enrique Almeida, CEO of Regina Festas, which sells party supplies. "But they must apply these efficiently and be willing to adapt their approach to the local customer."

Chart 8: Location of innovation

Which of the following best describes where innovation generally takes place in your company?



 Developed market companies with rapid-growth market operations

Rapid-growth market companies operating internationally
Rapid-growth market companies operating domestically

"Big multinationals need to look at what has already been developed locally and then partner with entrepreneurs to scale up these innovations."

Navi Radjou, innovation and leadership consultant and a Fellow at Judge Business School, University of Cambridge

In the polycentric innovation model, new technologies and concepts can travel in all directions. It is striking that almost onequarter of respondents from rapid-growth market companies that operate domestically conduct all of their R&D at a single center in a developed market. At the same time, a growing number of companies from developed markets are taking innovations developed in rapid-growth economies and finding new markets for them in the developed world. In a 2009 Harvard Business Review article,⁸ Professor Govindarajan coined the term "reverse innovation" to describe the process whereby GE took its portable, low-cost electrocardiogram, which had been developed for rural clinics in India, and found a new market in the US for the device among emergency services at accident sites. As living standards in developed and rapid-growth markets converge, and as companies invest more widely in rapid-growth market R&D, this trend is certain to accelerate. Among our survey respondents, 81% agree that frugal innovation is a concept that has as much relevance in developed markets as it does in rapid-growth ones (see Chart 9).

Total

Developed market

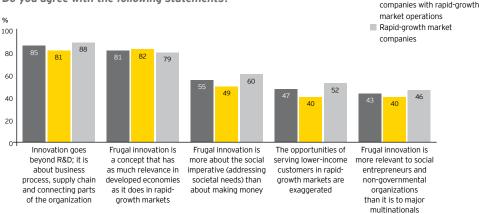


Chart 9: Attitudes towards frugal innovation Do you agree with the following statements?

Footnotes

Jeffrey Immelt, Vijay Govindarajan and Chris Trimble, "How GE is Disrupting Itself," Harvard Business Review, October 2009.

The importance of an open approach

A more open approach to innovation, whereby companies combine both internal and external partners from around the world to generate ideas and solutions, will be a key component in successful innovation for the next three billion. By engaging the brainpower of local research organizations and entrepreneurs and feeding this into a global innovation model, companies have the opportunity to gain access to local knowledge without sacrificing global scale. "Open innovation allows us to improve the success rate, shorten the time to market and reduce risk," says Mr. Sudhamek.

Procter & Gamble has become a leading proponent of the open innovation model through its Connect + Develop program. Through Connect + Develop, P&G is able to tap into the innovative power of researchers around the globe.

Although the Connect + Develop program is currently more advanced in developed markets than in rapid-growth ones, P&G sees it as a crucial tool for creating innovations for low-income customers. "We are constantly looking to build networks so that technical challenges can be pushed out to relevant researchers, whether they are government labs, universities, private R&D firms or suppliers," says Mr Weedman. Joint-venture partnerships between multinationals and entrepreneurs in rapidgrowth markets can also make a powerful contribution. "Big multinationals need to look at what has already been developed locally and then partner with entrepreneurs to scale up these grassroots innovations," says Navi Radjou, a Fellow at Judge Business School and the co-author of Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth (Jossey-Bass, 2012).

Outright acquisition can be another route to gaining access to frugal innovation capability, although in a number of rapid-growth markets, this may not be possible because of regulatory constraints. "Acquisition provides better access to the local market and, at the same time, financial muscle for Western multinationals to implement their local strategies," says Dr. BRA Mooryati Soedibyo, founder of PT Mustika Ratu, a natural cosmetics and herb supplements company based in Indonesia.

Microsoft: A platform for competitiveness

The dissemination of technology in rapidgrowth markets has been a vital catalyst of entrepreneurship and economic growth. But despite considerable progress in recent years at bridging the digital divide, access to technology in rapid-growth markets remains well below levels in developed markets. According to a 2007 report from Euromonitor, lower-income countries account for just one-third of total broadband subscribers worldwide.⁹

Josh Nash, a senior strategist at Microsoft, has seen an evolution in thinking on the digital divide in recent years. "A few years ago, the hypothesis was that if you gave somebody a computer, they would figure out how to turn that into an opportunity which would lead to economic growth," he says. "I think over the course of time we realized there needs to be more to the equation than that."

Instead, companies like Microsoft increasingly see their role as providing a more holistic set of tools that will enable innovation to take place. Hardware and software form part of this, but there are also important roles for a broader ecosystem, including government, software developers, partners and innovators. And importantly, this network needs to be appropriate for the particular market. "Technology is not a silver bullet," says Mr. Nash. "It is an enabler of a broader, more holistic solution that can really make a difference." Microsoft's BizSpark program offers an example of this kind of collaboration. A global program that has to date helped 45,000 software startups succeed by giving them access to Microsoft software development tools and connecting them with key industry players, BizSpark is now available to entrepreneurs in a range of rapid-growth markets, including India. "Rather than just provide access to technology, programs like BizSpark serve as a platform for innovation and economic growth," says Mr. Nash. "It's really about providing the tools for innovation that will enable a country to make the most of its competitive differentiators."

Footnotes

 An Hodgson, "The Global Digital Divide," Euromonitor International website, www.euromonitor.com/the-global-digital-divide/ article, accessed 12 October 2011. "Multinationals are just looking at the margins and not thinking about the business models and the way they are relating to customers."

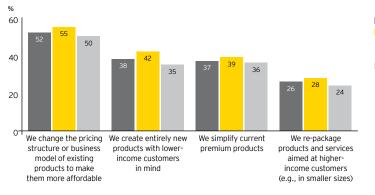
Linda Rottenberg, co-founder and CEO of Endeavor

4. Operations and business model: combining local relevance with global scale

Radical product innovations, such as the Tata Nano or ChotuKool, may hog the headlines when it comes to innovation in rapid-growth markets, but they are just one small part of the story. Just as important is the need for companies to think about the business model and ensure that it is appropriate for a lowerincome customer base. Among our survey respondents, changes to the pricing structure or business model are the most widely used approach to develop products and services aimed at lower-income customers. More than half of companies say that they take this approach, while only 38% create entirely new products with lowerincome customers in mind (see Chart 10).

Chart 10: Tailoring new product development to low-income customers in rapid-growth markets

Which of the following approaches do you currently take to developing products and services aimed at lower-income customers in rapid-growth markets?



Total

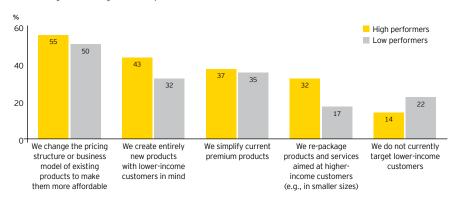
- Developed market companies with rapid-growth market operations
- Rapid-growth market companies

"Creating low-cost but high-quality products and services for the middle class in rapid-growth markets will require companies to innovate across the entire value chain. They will need to strip out costs, increase efficiency and establish highly productive relationships with key suppliers and distributors to ensure that they can meet the price points that lower-income customers can afford."

> Bill Delves, Asia-Pacific Strategic Growth Markets Area Leader, Ernst & Young

Chart 11: High performance companies tailoring new product development to low-income customers in rapid-growth markets

Which of the following approaches do you currently take to developing products and services aimed at lower-income customers in rapid-growth markets? EBITDA growth: high vs low performance



Higher-performing companies (those with higher-than-average EBITDA growth) are more likely to take the more radical approach of creating entirely new products and services for lower-income customers. This suggests that they are more advanced in their ability to target the next three billion effectively (see Chart 11).

At the most basic level, changes to the business model may simply involve reformatting the product or adjusting pricing. For many years, consumer goods companies have sold products such as shampoo in singleuse sachets that are affordable for customers who are paid daily. "By making the cost structure more variable, companies can give customers flexibility to buy according to their needs but still deliver high-quality products to them," says Mr. Radjou. At the upper end of the market, some luxury goods companies have tweaked the business model to increase sales to the aspirational middle classes. Mr. Almeida of Regina Festas points out that, in Brazil, some luxury brands allow customers to pay in installments – a concept that would be unthinkable on Bond Street or Rodeo Drive.

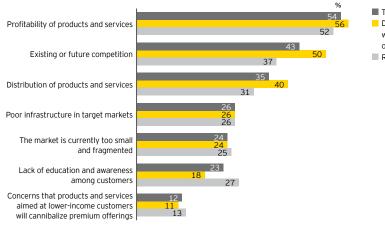
But these tweaks to pricing and payment models only scratch the surface. The real opportunity lies in thinking about the underlying business model and ensuring that it is tailored to the unique business environment in rapid-growth markets. "Pricing can be solved, but a lot of multinationals are just looking at the margins and not thinking about the business models and the way they are relating to customers," says Linda Rottenberg, co-founder and CEO of Endeavor. "Failure to scale will only give our competitors product development ideas. To ensure that companies achieve a successful innovation outcome, their planning must accommodate scalable capacity."

> Dr. BRA Mooryati Soedibyo, Founder & Technical Advisor of PT Mustika Ratu, Tbk

Enrique Beltranena, CEO of Volaris, a low-cost airline, believes that an important component of the business model should be the ability to unbundle products or services so that different price points can be charged. Customers on the lowest incomes can pay for the most basic, no-frills product, while those with more disposable income can afford a number of add-ons. "Unbundling products and services enables companies to reduce their prices dramatically but also allows them to charge ancillary revenues," he explains. Findings from our survey highlight the difficulties that companies face in establishing appropriate business models for innovation in rapid-growth markets. Respondents point to profitability as the most important challenge (see Chart 12). The simple fact is that many companies struggle to see how they can sell a product or service at a price that is affordable to low-income customers and yet still turn a profit.

Chart 12: Barriers preventing the development of new products for low-income customers

What do you consider to be the main barriers for your company to developing products and services that meet the needs of lower income customers in rapid-growth markets?





Rapid-growth market companies

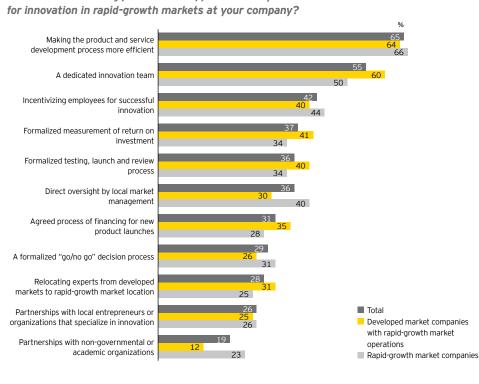
"Companies seeking to innovate in rapid-growth markets need to find ways to empower local managers to make decisions quickly. Local autonomy ensures rapid adaptation in these competitive new markets and increasingly provides innovations that can be used in other markets worldwide."

> Sam Fouad, Americas Emerging Markets Leader at Ernst & Young

Part of the challenge is one of mindset. Companies in developed markets, in particular, have become used to high margins on premium products. In rapid-growth markets, margins may be much smaller, but the potential volumes are enormous. The challenge is therefore one of shifting the perception of managers in developed markets to a low-margin mindset, and then ensuring continuous cost reduction and a laser focus on efficiency across all aspects of the value chain. But this focus on cost efficiency must not lead to other important qualities of the product or services being compromised. "You can always reduce costs, but if you sacrifice quality, then you won't sell your product," says Mr. Mendez.

Respondents recognize that process efficiency will be key to success. Asked about the approaches they use for innovation in rapidgrowth markets, they point to efficiency in the development process as the number one factor (see Chart 13). "The frugal product can only happen if you have a frugal supply chain and, more importantly, a frugal mindset," says Mr. Radjou.





The rise of the global middle class - and how to capitalize on it

Finding the right local partners to achieve operational excellence across procurement, distribution and sales will also be critical. Companies must ensure that they carry out extensive due diligence on potential partners, and work closely with those partners to understand the specifics of the local market. Many companies have found to their cost that having an ineffective sales or distribution partner in rapid-growth markets can easily spoil the chances of success, no matter how innovative the product.

A lean approach to distribution and the supply chain is essential to keep costs down. If a company misjudges the market and finds itself stuck with excessive or insufficient inventory, this can increase costs and erode slim margins. At Ingenia Muebles, Mr. Vidal highlights the importance of just-in-time processes. "Because our furniture is made to order, we don't need to keep inventory," he says. "That keeps our costs down and makes us much leaner as an organization."

The ability to scale promising ideas quickly should also form part of this capability. The pace of the business environment in many rapid-growth markets means that companies need to conduct constant experiments and be willing to scale them quickly to meet demand. "Failure to scale will only give our competitors product development ideas," says Dr. BRA Mooryati Soedibyo. "To ensure that companies achieve a successful innovation outcome, their planning must accommodate scalable capacity." But for many multinationals, it can be difficult to unlearn the habits of the past. Many have legacy operations, IT infrastructures and preexisting relationships with partners that make it more difficult for them to adapt their operations quickly. In addition, they can often find that operating models designed for developed markets have a cost base that is too high to be profitable in rapid-growth markets. "Multinationals are trying to change, but they have to let go of their legacy thinking before they can embrace the new model," says Mr. Radjou.

With the right business model in place, companies can also start to address the second-biggest barrier that prevents them from targeting low-income customers competition. Mr. Gopalakrishnan cites the example of the *dabbawalas*, a meal delivery service in Mumbai that is used by an estimated 200,000 office workers every day. Despite using minimal technology and relying on a sorting system that dates to the 19th century, the service loses only 2 in every 8 million lunches, giving the service the equivalent of a Six Sigma quality certification. "If you can create a business model that is as difficult to replicate as that, then it becomes a major barrier to entry for the competition," says Mr. Gopalakrishnan.

Volaris' "flying buses"

The past few years have been troubled times for the traditional Mexican aviation industry. In 2010, the state carrier Mexicana filed for bankruptcy with debts of about US\$800m. Other airlines, including Alma and Aero California, have also closed in the face of falling revenues and spiraling costs.

In such a challenging environment, launching an airline in Mexico might seem like a foolhardy endeavor. But Volaris, a low-cost airline that made its first passenger flights in 2006, was determined to take a different approach. Its goal was to serve the millions of low-income Mexicans for whom air travel was either too costly or inaccessible. Reaching this demographic would require a highly innovative approach to the business model, customer service and operations.

The first step was to identify the unmet needs of this target customer base. As part of its initial feasibility study, Volaris researchers looked at patterns of longdistance telephone call traffic and compared this with existing flight routes. Discrepancies between the two suggested that there was a gap in the market for new routes where phone traffic was heaviest. "By analyzing the volume of communication between different communities, we could then match those patterns with a series of new flight routes," says Enrique Beltranena, CEO of Volaris.

In the absence of an air travel service that met their needs, most low-income Mexicans used buses for long-distance journeys. To understand why, Volaris researchers spent time at bus terminals observing how passengers purchased and used bus services. They found that the low cost of bus travel was just one of the factors influencing their choice. Many low-income customers also preferred buses because terminals were located in city centers, tickets were easy to purchase and most journeys could be completed in a single leg. "We realized then that we needed to develop a system for flying that was similar to the way people use buses," says Mr. Beltranena. Rather than adopt the traditional hub-andspoke airline model, Volaris has taken its cues from bus travel and adopted a point-to-point system. This reduces the complexity of air travel for customers who may have low levels of literacy and also eliminates the need to base fleets at costly airports such as Mexico City. Volaris has also laid on free shuttle services to carry passengers from city centers because it realized that the incremental cost of getting to out-of-town airports often made flying a less attractive option for lower-income customers.

The company also made it easier for customers to purchase flight tickets. It discovered that only a small minority of low-income families had an internet connection or a credit card. So rather than encourage passengers to book online, as most airlines do, Volaris set up distribution channels through department stores, travel agents and retail chains. "We worked through the process of how passengers purchased tickets and, rather than trying to change their behavior to suit us, we adapted the distribution and procurement processes to fit their daily lives," says Mr. Beltranena.

Ensuring that ticket prices are affordable for its target demographic has required Volaris to be highly innovative in its operations. Its planes have a high on-board seat density and are in the air for longer than those of most competing airlines. Rather than carry out maintenance in Mexico, Volaris sends its fleet to lower-cost El Salvador, which is the Airbus headquarters for Latin America. It even pays particular attention to washing and polishing aircraft because this cuts down on air resistance.

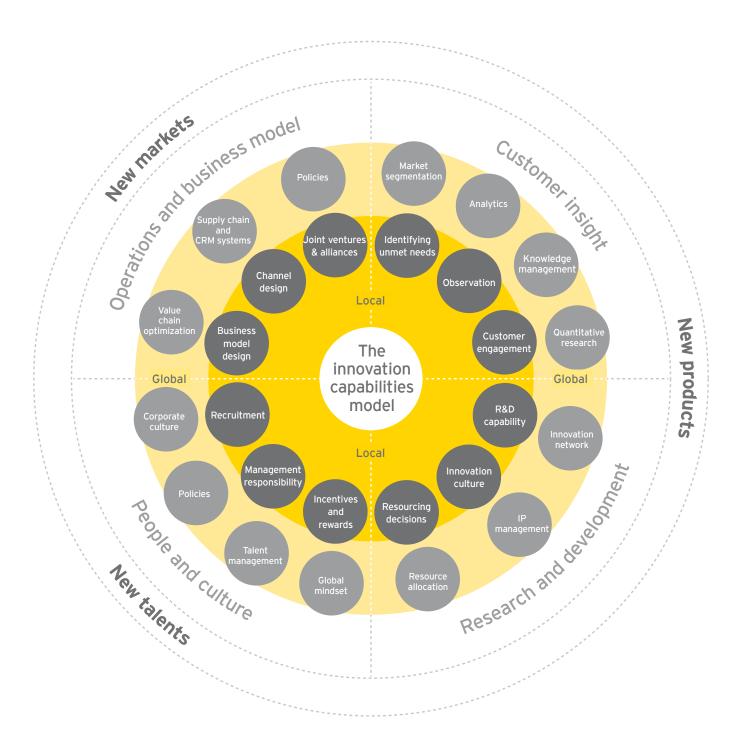
A high percentage of compensation for employees is variable and based on performance metrics. A crucial measure for many workers is turnaround speed. Every employee involved, including baggage handlers, check-in staff and flight attendants, is measured according to his or her ability to keep flights on schedule. An executive dashboard allows senior managers to keep track of performance across as many as 12,000 metrics. Volaris has also made use of sponsorship deals to bring down the cost of in-flight service. The marketing team has struck deals with a range of consumer goods companies, including Coca-Cola, Krispy Kreme and Dove, allowing the firms to advertise on board in return for providing products free of charge.

This intense focus on business model innovation and cost efficiency is reaping rewards. Although Volaris faces increasing competition, its innovative approach to low-cost passenger aviation has been highly successful. The company has a 16% share of the domestic market and is expected to announce an initial public offering in the near future. "The only way to survive in this industry is through innovation," says Mr. Beltranena. "Airlines must be able to offer low-cost and excellent service to customers; otherwise, they will not succeed."

Innovating for the next three billion: the innovation capabilities model

Ernst & Young conducts extensive research to determine and share the actions that will drive growth by high performers in a volatile economy. We understand that the new economy is more competitive than ever before. Companies today face greater variation in market performance, sharper market volatility, more demanding stakeholders and an increasingly interdependent global economy.

To succeed in this environment, companies need to execute a strategy based on expanding into new markets, finding new ways to innovate, and implementing new approaches to talent management to grow faster than their local and, increasingly, international competition. Innovating for the next three billion will play a crucial part in these strategies. It will require companies to further develop four key capabilities: customer insight; people and culture; research and development; and operations and business model. Each of these capabilities comprises various components that are either local or global in nature. The key to success will be for companies to combine these local and global components to ensure that their products and services will be relevant to local customers, while still enabling the company to leverage global resources, capabilities and scale.





Customer insight

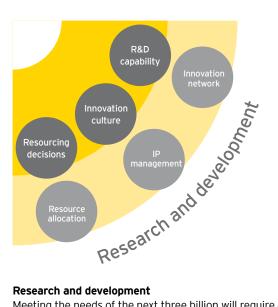
Understanding customer needs requires resources on the ground in local markets. Companies must:

At a local level

- Have resources available to observe potential customers and assess where their unmet needs lie.
- Develop the capability to conduct in-depth research, including extensive ethnographic research and qualitative fieldwork.
- Engage customers and treat them as partners and collaborators in the innovation process.

At a global level

- Use analytics and technology to gather information about specific markets and turn this into actionable insight.
- Conduct guantitative research and build a rigorous understanding of market size and expected customer behavior. This allows companies to spot linkages across markets and derive economies of scale from reapplying knowledge about customer needs.



Research and development

Meeting the needs of the next three billion will require companies to:

At a local level

- Carry out an increasing proportion of their R&D activities close to where these customers are located - in rapid-growth markets.
- Develop a "reverse engineering" approach, where affordability forms the baseline from which to develop entirely new products and services.
- Make sure that local R&D centers have the autonomy to make their own decisions about which projects to pursue.
- Put in place mechanisms for new ideas to reach decision-makers, regardless of where in the organization they originate.

At a global level

- Set up global innovation networks that link R&D centers across both developed and rapid-growth markets to share relevant intellectual property.
- Think about "platform technologies" that are globally relevant and that can be combined with local components at the point of delivery.
- Make decisions about how to allocate R&D resources around the globe - and move them from one location to another as the need arises.



People and culture

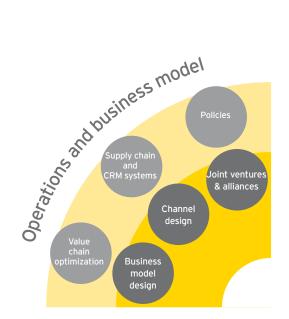
Talent and expertise are critical to successfully innovating for the next three billion. Companies should:

At a local level

- Delegate decision-making responsibility to local teams in rapidgrowth markets.
- Ensure that local managers have the ability to make recruitment decisions.
- Be able to take forward new product or service ideas to meet local needs.
- Embed local profit and loss (P&L) responsibility to ensure that managers have accountability. Have the capability to set pay and reward structures for local teams to ensure that they are appropriate for the pace and growth rate of the market.

At a global level

- Manage talent globally so that managers can be rotated among key markets and gain experience across diverse business environments.
- Work to build a culture and set of values that are global in scope.
- Develop a global mindset and the ability to tolerate ambiguity and integrate multiple perspectives.
- Understand the interdependencies among different regions and how decisions made in one region will affect another.



Operations and business model

To be successful, products for the next three billion need to be both affordable and accessible. Getting the business model right and ensuring that operations are optimized across the value chain is therefore critical. Companies need to:

At a local level

- Select local partners carefully across every stage of the value chain.
- Ensure that operations are as efficient as possible to bring down cost and maintain margins.
- Take into account the needs of local customers and ensure that pricing and other aspects of the business model are appropriate.
- Develop the agility to respond quickly to new opportunities and risks.

At a global level

- Establish clear policies, including risk management and compliance frameworks, to ensure accountability and ethical behavior across the value chain.
- Use global supply chain and customer relationship management (CRM) systems to optimize the value chain globally and ensure that it is both efficient and resilient.
- Make decisions about which aspects of the value chain to localize and which to maintain at a global level.

Looking ahead to the next three billion ...

Over the next two decades, rising per capita wealth in rapid-growth markets will generate a significant growth opportunity for multinational companies. Understanding this market, and developing products and services that meet its needs, will become a strategic priority that cannot be ignored. Companies that downplay its importance, and focus on traditional premium markets in developed economies, will not only miss out on this massive opportunity, but also find themselves increasingly disrupted by agile new competitors in their home market.

Innovating for the next three billion, then, is not just about formulating a rapid-growth market strategy. As the world becomes more polycentric, causing ideas, capital and people to flow in every direction, the key is to understand the similarities across markets as well as the differences. Product development and strategy execution may need to be local, but they should draw on global resources and re-apply ideas and knowledge in other markets – whether rapid-growth or developed. Today's leading innovators understand that they must combine local knowledge with global resources and capabilities across multiple dimensions. This ensures that products and services will meet the price points of different customer demographics, but also fulfill their unmet needs in a way that has rarely been achieved before.



Respondent profile

The online survey of 547 C-suite executives, board directors and senior managers in rapid-growth markets was conducted by the Economist Intelligence Unit in September 2011. It included developed market companies with rapid-growth market operations and rapid-growth market companies.

Respondent location	%
India	15
Mexico	15
Russia	14
China	13
Brazil	13
Turkey	12
Indonesia	10
South Korea	8

EBITDA growth in last year	%
Over 20% increase	16
10% to 20% increase	29
5% to 10% increase	25
1% to 5% increase	16
No change	10
Decrease	4

Sector	%
Manufacturing	21
Financial services	13
Technology	9
Consumer products	8
Professional services	7
Real estate	6
Life sciences	6
Automotive	4
Oil and gas	4
Retail and wholesale	3
Chemicals	3
Power and utilities	3
Telecommunications	3
Mining and metals	2
Media and entertainment	1
Other transportation	1
Other sectors	6

Stakeholder	%
CEO/President/Managing director	21
SVP/VP/Director	18
Head of department	18
CFO/Treasurer/Comptroller	12
Head of business unit	11
Other C-level executive	9
Board member	5
Head of M&A/Corporate development	3
CIO/Technology director	3

Revenue	%
US\$20b or more	12
US\$10-19b	6
US\$5-9b	8
US\$1-4b	22
US\$500-999m	15
US\$250-499m	8
US\$100-249m	13
Less than US\$100m	16

The rise of the global middle class - and how to capitalize on it

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