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ENTREPRENEURSHIP

Africa's New Generation of Innovators

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For years now, business leaders and investors from around the world have waited for the Africa Rising narrative to shift from promise to reality. The continent has understandably been the focus of increasing investment and attention since the turn of this century. With a young, urbanizing population; abundant natural resources; and a growing middle class, Africa seems to have all the ingredients necessary for breakaway growth—perhaps even outstripping the so-called tiger economies of East Asia a generation ago. Indeed, a 2010 report by the McKinsey Global Institute titled "Lions on the Move" expressly made this comparison, forecasting that consumer spending on the continent would grow by 40%, and GDP by $1 trillion, from 2008 to 2020.

And yet this tantalizing vision has remained just that—a dream perpetually around the next corner. A number of major business enterprises have recently departed from the continent, their leaders discouraged by the same obstacles that have confronted would-be investors for years: widespread corruption, a lack of infrastructure and ready talent, and an underdeveloped consumer market.

We have spent the past several years closely studying patterns of innovation success and failure in emerging markets, with a particular focus on Africa and East Asia, and we have learned from leaders of some of the world's great companies how daunting the obstacles can be. But we have also been tracking the success of some innovators in Africa that flout the conventional wisdom—by building franchises to serve poorer segments of the population; creating markets that tap the vast opportunity represented by nonconsumption; internalizing risk to build strong, self-sufficient, low-cost enterprises; and integrating operations to avoid external nodes of corruption. Their experience paints a hopeful picture of an Africa that can indeed fulfill the promise of prosperity. One young entrepreneur summed up the lift that homegrown success can provide by observing, "When the solution comes from within, we start believing in ourselves. We start trusting that we can do this, we can go forward."

How have these innovators, many of whom are local entrepreneurs, found a path where so many larger, better-resourced enterprises have hit a wall? In this article we outline their market-creating innovation model and describe how it generates significant growth in both revenue and employment. We also describe methods for spotting nonconsumption, the fundamental opportunity on which this model capitalizes. Finally, we offer some suggestions for policy makers, investors, and entrepreneurs about how to increase both the number and the impact of these innovative enterprises.

The Paradox of Power

In their groundbreaking 2002 article "The Fortune at the Bottom of the Pyramid," C.K. Prahalad and Stuart L. Hart described the vast opportunity facing multinational corporations that can adapt their business models to address the needs of the billions of "aspiring poor" inhabitants of developing countries around the world. In more recent years, Hart and his colleagues have taught us to shift our perspective from making a fortune *from* the base of the pyramid to creating a fortune *with* it, and also to be more mindful of environmental consequences when crafting strategy. The compelling vision these scholars have set forth—of an inclusive capitalism linking business, government, and NGOs in common cause—has engaged the best efforts of those constituencies for a decade and a half, with some notable successes.

But now many of the multinationals that pursued this opportunity have become discouraged by its sheer difficulty, and nowhere more so than in Africa. In February 2016 Barclays Bank announced its intention to exit the continent as part of a general pullback from emerging markets that are not developing as quickly as anticipated. In June 2015 Nestlé announced that it was dramatically retrenching in Africa: cutting its workforce by 15% across 21 countries, pulling out of two countries entirely, and reducing its product line by half. Other Western consumer-goods icons, including Coca-Cola, Cadbury, Eveready, and SABMiller, are also leaving African markets once thought to hold great promise. According to recent data from the United Nations Conference on Trade and Development, foreign direct investment in Africa fell by a third, to $38 billion, in 2015, against an overall trend of increased investment in developed economies.

Among the obstacles frequently cited by multinationals, four stand out for both their stubbornness and their familiarity; indeed, we've heard the same objections for decades. Most pervasive, perhaps, is the enervating effect of corruption. Corporations are understandably leery of institutionalized corruption and so seek to invest in countries that pass a litmus test dictated by the company itself or by international agencies that measure perceptions of corruption. Here, regrettably, Africa does not show to advantage. Its countries are typically found toward the bottom of the World Bank's ease-of-doing-business index and Transparency International's corruption-perceptions index. In explaining his company's decision to exit Nigeria in 2015, Jan Arie van Barneveld, the CEO of the Dutch staffing firm Brunel, said, "We had the feeling that we were being constantly cheated and bribed."

> "We thought [Africa] would be the next Asia, but…the middle class…is extremely small and… not really growing."

The second obstacle is infrastructure, or the lack thereof. Would-be entrants cling to the view that investment should follow infrastructure—that in effect, the World Bank and other international development agencies should provide access to electricity, roads, sanitation, and other shared services, enabling businesses to move in and take advantage of those investments. This view was evident at a recent World Economic Forum on Africa event at which speakers offered a range of ideas for stimulating development on the continent, from land reform to a focus on education to larger financial markets—along with higher taxes on both corporations and wealthy individuals to pay for all these supposed prerequisites.

A third obstacle to multinationals' efforts to grow in Africa is the widespread skills shortage, general across sub-Saharan Africa and most acute in markets that have experienced rapid growth, such as Kenya, South Africa, and Nigeria. A recent study by Russell Reynolds on executive talent in Africa revealed, according to the *Wall Street Journal,* that companies "are eager to recruit good hires in the region, but find that candidates with traditional management skills—such as the ability to drive change or build teams—are in short supply." In a detailed analysis of the situation in South Africa, a World Economic Forum "Future of Jobs" study laid much of the blame on the country's tertiary schools for failing to feature adequate STEM-oriented courses and for omitting training in complex problem solving, critical thinking, and cognitive flexibility.

Finally, and ironically, more than a decade after Prahalad and Hart's prescription for growth in the so-called Tier 4 market that forms the wide bottom of the pyramid, most multinationals still try to peg their efforts—and fortunes—to the emerging middle class. Indeed, disappointment over its growth and size in Africa was the largest factor in Nestlé's decision to retrench. In an interview with the *Financial Times,* Cornel Krummenacher, the chief executive for Nestlé's equatorial Africa region, explained the company's actions: "We thought this would be the next Asia, but we have realized the middle class here in the region is extremely small and it is not really growing….Urbanisation is usually very good for manufacturers, but in this case many people are literally living in slums, so they have nothing to spend."

Much of the emerging-market investment community, which closely tracks trends in the growth of the middle class when deciding where to focus, shares this pessimistic outlook. Recent research by the Pew Research Center suggests that although the middle class worldwide swelled to 783 million in 2011 from 398 million in 2001, fewer than 6% of those 385 million new members are in Africa. By that measure, the number of middle-class African workers, which Pew defines as those earning $10 to $20 a day, barely changed across the decade.

Exacerbating the situation is the African Growth and Opportunity Act (AGOA), a trade deal signed in 2000 by the United States and many African countries, which allowed the latter to export more than 7,000 products to the United States duty-free. AGOA was meant to diversify African economies and boost development. Instead a majority of those economies invested heavily in the resource-extraction sector and came out even less diversified. Exports grew, but development didn't.

A Tale of Two Strategies

Why do so many multinationals run up against long-standing obstacles to success in developing markets, whereas other MNCs and local entrepreneurs succeed? We believe the answer lies in the difference between “push” and “pull” investment. Push strategies are driven by the priorities of their originators and generate solutions that are imposed on markets and consumers. Pull strategies respond to needs represented in the struggles of everyday consumers. The difference in outcomes could not be starker.

Most multinationals hope to achieve breakout growth by pushing current products onto emerging middle-class consumers. They carry with them some large portion of their existing cost structure and operating style, and thus set prices at levels that limit market penetration. As more competitors pile in, these companies face the dilemma of lower growth versus lower margins—and in the end, they get both. Soon enough, the truth emerges: Though they thought they were pioneering in a new market, they were actually targeting a finite base of existing consumption, fighting for every point of share in a highly competitive environment.

The strategy that wins in emerging markets diverges from this conventional approach in almost every respect. The fundamental advantage of pull over push development is that the market is assured—there is no uncertainty about whether sufficient demand exists. When innovators develop products that people want to pull into their lives, they create markets that serve as a foundation for sustainable growth and prosperity. Our research focuses on ventures that address the unmet needs of everyday consumers instead of seeking high-margin opportunities by chasing the middle class. They purposely follow the lowest-margin opportunities, relentlessly managing costs by integrating as many elements of the activity chain as possible, from raw materials sourcing to final distribution. They pull needed infrastructure and talent into the company and integrate around potential nodes of corruption—choosing to build self-reliance rather than to depend on existing options. Their investments are guided by a desire to increase affordability and accessibility, and the resulting price and cost discipline fuels higher growth, expanding the market by targeting nonconsumption. Higher growth boosts employment, as ever more workers are needed to make, sell, and distribute products and services.

The twin benefits of economic growth and employment growth are signatures of market-creating innovation, differentiating the impact of this strategy on local markets from that of multinationals' market entry, the ultimate objective of which is simply to increase efficiency. For example, when a major corporation in a developed nation builds a factory to make products at a lower cost (cars in Mexico, for example), its intention is to export those products to richer markets. It doesn't invest to create sales, distribution, or servicing jobs in the local economy. Likewise, investments in natural-resource extraction rarely create robust economic or employment growth, because the yardstick by which these investments are measured is efficiency. From the day a facility powers up, its operators are measured by their ability to increase efficiency—to eliminate jobs.

Pull strategies driven by market-creating innovators have been behind the migration from poverty to prosperity in Taiwan, South Korea, Singapore, and Hong Kong—the four Asian tigers—whose leading companies have consistently focused on low costs over high margins and on creating markets by targeting nonconsumption. The Tolaram Group in Nigeria provides another notable example.

Introducing Noodles to Nigeria

Perhaps the most beloved consumer product in Nigeria is also one of the humblest: Indomie instant noodles. Sold in single-serving packets for the equivalent of less than 20 U.S. cents, the brand enjoys near-universal name recognition, maintains a 150,000-member fan club with branches in more than 3,000 primary schools, and sponsors Independence Day Awards for Heroes of Nigeria to celebrate the accomplishments of exemplary Nigerian children. The brand and Dufil Prima Foods, the Tolaram company that produces it, are so well woven into Nigerian society that it might surprise Nigerians to recall that noodles are not among their traditional foods and that Tolaram has operated in the country for less than 30 years. The company's growth track turns the conventional wisdom about development on its head.

> Pull strategies have accounted for the success of the so-called Asian tigers.

The Tolaram Group was founded in Malang, Indonesia, in 1948. It began by trading textiles and fabrics and has since evolved into a manufacturing, real estate, infrastructure, banking, retail, and e-commerce conglomerate. In 1988, the year Tolaram began selling Indomie noodles in Nigeria, that country was far from an investment magnet: It was under military rule; life expectancy for its 91 million people was 46 years; per capita income was barely $256; less than one percent of the population had a phone; only about half had access to safe water; only 37% had access to proper sanitation; and 78% lived on less than $2 a day. But in these circumstances the brothers Haresh (now managing director, Nigeria) and Sajen (now CEO) Aswani saw a huge opportunity to feed a nation with a very affordable and convenient product.

Indomie noodles can be cooked in less than three minutes and combined with an egg to produce a nutritious, low-cost meal. But the vast majority of Nigerians had never eaten or even seen noodles. Deepak Singhal, the CEO of Dufil Prima Foods, recalls, “Many people initially thought we were selling them worms.” The Aswani brothers were convinced, however, that they could create a market in Nigeria because of the growing population and the convenience of their product. Instead of focusing on the demographics that conventional wisdom suggested, they focused on assembling a business model that would allow them to create a market.

The decision to target the needs of typical Nigerians compelled Tolaram to make long-term investments in the country. In 1995, to control the costs of its operations, it shifted noodle manufacture to Nigeria. To do so, Tolaram had to pull infrastructure, such as electricity and water, into its operations. Singhal says, “I run a food company, but I know more about electricity generation than food.” Tolaram is in the education business as well, recruiting top graduates of Nigeria’s schools and pulling needed skills through company-provided training in electrical and mechanical engineering, finance, and other disciplines. Where some multinationals might push expatriates into an emerging-market assignment, Tolaram pulls its leaders for Africa from Africa.

The company’s investments did not stop there. To get its products to market, Tolaram had to integrate its operations both forward and backward. Nigeria, like many other emerging and frontier markets, has no thriving formal supermarket sector, and the path from factory to consumer contains many potential points of shrinkage. So Tolaram’s managers chose to invest in a supermarket supply chain that began with company-owned trucks and expanded to include distribution warehouses and storefronts. Wherever they identified product “leakage,” they pulled honesty into the business through forward integration, taking ownership of that point rather than working with external partners and processes. They didn’t try to push honesty by hiring more police officers, who are often easily corrupted. The question, “What’s the point if your product is affordable but not available?”

guided Tolaram's supply chain investments. Looking upstream, the company had to provide almost all its inputs, because suppliers either couldn't meet quality or cost standards or didn't adhere to contracts. As a result, Tolaram now controls 92% of the inputs for Indomie noodles and operates 13 manufacturing plants in Nigeria, many of which supply those inputs.

Tolaram's dedication to this market-creation strategy has paid off. Today the company sells 4.5 billion packs of noodles in Nigeria annually. It owns and operates more than 1,000 vehicles for logistics, directly employs more than 7,500 people, has created a value chain with 1,000 exclusive distributors and 600,000 retailers, and has revenue of almost $1 billion a year while contributing approximately $100 million in tax receipts to the Nigerian government exchequer. The company is now creating markets in Nigeria for other fast-moving consumer goods, such as bleach and vegetable oil. Before Tolaram released its Hypo bleach product, fewer than 5% of Nigerians used bleach to wash their clothes. Tolaram reports that over the past few years, leveraging its manufacturing and distribution prowess, it has expanded that market sixfold, reaching 30% of the population. It plans to do the same with vegetable oil.

If Tolaram had taken the conventional approach and invested in the emerging middle class, it wouldn't have achieved 36% annual growth—in a market it created—over the past 15 years. If it had waited for the Nigerian government or international development agencies to address infrastructure challenges before investing, the company wouldn't be operating in Nigeria today. Tolaram internalizes the risks that others perceive in the Nigerian business environment. The most visible evidence of this strategy is that the company has taken a lead role in creating a $1.5 billion public-private partnership to build and operate the new Lekki deepwater port in the state of Lagos. Ankur Sharma, formerly Tolaram's head of corporate strategy for Africa, summarized the company's approach to self-reliance in February 2016: "As we create a market, we do what is necessary to ensure success. In some countries we have built power plants; in others we have invested millions of dollars in logistics just to move our products from the factory to the retail sites, in line with our value-chain-integration theme of controlling our own destiny by driving costs down. We are committed to whatever market we enter and will do whatever it takes to be successful there."

As Tolaram closes in on three decades of operations in Nigeria, a growing number of start-ups are emulating its strategy. MoringaConnect is a three-year-old Ghanaian company founded by Kwami Williams, an MIT-educated aerospace engineer, and Emily Cunningham, a Harvard-trained development expert. It provides Ghanaian farmers with seeds, fertilizer, training, and financing to enable them to plant and harvest the moringa, a hardy, fast-growing tree whose leaves are an abundant source of nutrition and have been used in traditional medicines for centuries. Since its inception, MoringaConnect has signed up 1,600 farmers, and hundreds more are on a waiting list. The company has planted 250,000 moringa trees in northern Ghana and has increased farmers' incomes as much as 10-fold. It counts the online beauty subscription service Birchbox among its top customers (moringa oil is an ingredient in the company's hair- and skin-care products) and was on track to gross almost $1 million in 2016.

Originally Williams and Cunningham simply wanted to provide farmers with processing machinery for their moringa harvest. But the two found that this was not sufficient to create a new market, so they had to integrate to drive costs down. MoringaConnect looks past the market research suggesting that Africa's middle-class growth is slowing, that corruption is rife on the continent, and that Ghana's debt burden is skyrocketing. Instead its founders see an opportunity to capitalize on a resource that can generate immense wealth for farmers and ultimately for the nation.

Two other African companies practicing this strategy are M-KOPA and Fyodor Biotechnologies. The former, based in Kenya, provides solar power systems. Fewer than 30% of Kenyans have access to electricity, highlighting for the founders of M-KOPA an opportunity similar to that pursued by M-PESA, which started the mobile-payment revolution in Kenya in 2007. M-KOPA has been pulled into more than 400,000 homes as of this writing and is signing up an average of 550 homes a day. The company has established 100 service centers across Kenya and has created some 2,500 jobs. Although the World Bank calls Kenya's economic growth "modest at best," M-KOPA is creating a market out of hundreds of thousands of people—left behind by centralized infrastructure projects—who are pulling the company's solution into their lives.

Fyodor Biotechnologies, in Nigeria, has developed a urine malaria test (UMT) that will sell for $2 and can be conducted at home, freeing people from the need to travel to a clinic for a complicated and expensive diagnosis. The company is on track to manufacture 2.3 million UMT kits by mid-2017 and has recently bought land to build a manufacturing facility. Like Tolaram, it is already developing an integrated value chain.

Finding Opportunity in Nonconsumption

At once the most challenging and the most essential trait shared by the market-creating innovators we have studied is their ability to target nonconsumption—to sense the unmet needs that potential consumers struggle to satisfy, and to develop solutions and business models that can meet them. These innovators adopt a different perspective on the world—they look for what *isn't* being consumed. This trait may come more easily to entrepreneurs steeped in the local culture, but we believe it can be learned. We have identified four strategies that anyone interested in stimulating significant long-term economic and employment growth can emulate:

Spot the "struggling moment."

At its most basic, nonconsumption exists because consumers lack a solution that will allow them to meet an important need in an affordable, accessible manner. Perhaps inertia prevents them from seeking to pull a new product or service into their lives—or attributes of the existing solutions create anxiety or even fear. (One example: Services that offer metered access in an attempt to lower the initial cost of purchase can raise the specter of accidental overspending.) But the desire to accomplish an important job, combined with the attributes of a novel solution, can bring resolution. Consumers signal struggle with clear emotional markers, such as anger, frustration, and anxiety. Spotting these markers through ethnographic research or field observation is one of the most effective ways to discover nonconsumption or underconsumption.

Be alert to work-arounds.

When consumers lack affordable, accessible options, they create work-arounds, or "life hacks." Africa overflows with these, because many conventional products and services are simply too expensive for most people. Understanding the advantages and compromises inherent in such work-arounds can help entrepreneurs design novel solutions for current nonconsumers. That is what the Indian conglomerate Godrej did when it created a low-cost refrigerator for the rural market in India. The work-around that consumers had devised to compensate for a lack of refrigeration involved the traditional clay-pot cooler and the deeply entrenched habit of daily shopping and food preparation. Godrej's product, chotuKool, is compact, powered by an innovative cooling technology and a rechargeable battery, and costs a fraction of what conventional refrigerators do. It has been pulled into tens of thousands of households and small businesses that are beyond the reach of reliable electricity.

Learn from law bending.

Perhaps the most extreme form of work-around is the low-grade, “penny ante” law bending that consumers commit every day to circumvent restrictions they find irritating or petty. Such behavior is a reliable signal that a significant, recurring consumer need is going unmet. The popularity of Napster in 1999 clearly demonstrated that consumers valued the convenience of file-sharing and were willing to “bend” (record-label executives said “break”) the law to get access to music they wanted. Africa is rife with people breaking seemingly innocuous laws. From constructing illegal temporary structures to selling goods at pop-up stores on the sidewalks of many African cities, this behavior is easy to spot—and it’s a highly reliable indication that a legal, affordable alternative would be welcome.

Identify abundant or slack resources.

The fourth strategy mastered by market-creating innovators is recognizing abundant or slack resources—both human and natural—that could be incorporated into a novel solution at low cost. The sharing economy is built on the capture of such resources, with familiar examples in housing (Airbnb) and transportation (Uber and Lyft). Tolaram harnessed Nigeria’s plentiful wheat and spices to manufacture Indomie noodles and spotted the plentiful talent among top graduates of the country’s schools. Similarly, the founders of MoringaConnect built a business model centered on a tree that grows bountifully in Ghana.

Looking Forward

The failure of traditional development and investment models is sobering. How many of the 500-plus World Bank projects now under way in Africa consist of well-meaning but ultimately misguided efforts to push resource and infrastructure investments on the continent, and how much of the $53 billion those projects represent will be wasted? We might ask the same question about the $4.2 trillion in official development assistance offered by OECD countries over the past four decades. How often has push infrastructure actually fulfilled its investors’ ambitions and fueled the growth and development of new business and industry? Pull investments find a ready, assured market, whereas push investments are a guessing game with a high quotient of shrinkage and loss.

Given the current unprecedented levels of sidelined corporate investment capital and abundant liquidity at negligible interest rates, the global growth slowdown is puzzling. Investors and entrepreneurs need new approaches and perspectives to stimulate growth, and they must closely examine the circumstances in which new ventures thrive and expand.

The starting point is to see nonconsumption not as a dead end but as an opportunity to create new markets. This insight is particularly important for innovators and entrepreneurs, and we hope that the successes we and others are cataloging will give them courage and inspiration. In our experience, too many budding entrepreneurs, in Africa and elsewhere, are stuck in the mistaken assumption that they must wait for development agencies and others to make initial investments in infrastructure and education. The recognition that 600 million people in Africa don't have access to electricity should be a spur to innovation, not a flag of caution.

To our knowledge, no major development agency has established a formal program or an office to spot and nurture market-creating innovations. Imagine the impact that a World Bank unit focused exclusively on documenting, analyzing, and teaching the essentials of these innovations could have on entrepreneurs in Africa and on the lives and welfare of people throughout the world's emerging economies. Our hope is to participate in a rethinking of the role of development in creating prosperity—a hope that rests on the creativity of the many innovators who spot opportunity in the struggles around them.

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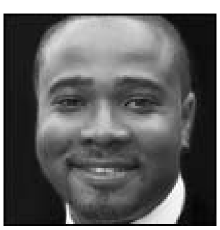

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