

# Setting the pace in Africa

*How IT leaders deliver on the potential of emerging technologies*



*With a population of one billion and a rapidly expanding consumer base, the African market is poised for explosive growth. Emerging technologies – social media, mobile, cloud and analytics – are creating new opportunities for the continent’s business and IT leaders, but some have yet to take full advantage of these new tools. Pacesetter companies, however, are closing the technology adoption gap. Unlike their peers, they have found ways to overcome a diverse range of leadership, skill and security issues. As the African economy expands, these forward-thinkers stand ready to gain significant competitive advantage.*

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#### About the study

IBM surveyed 180 Africa-based IT leaders across 29 industries in Egypt, South Africa, Kenya, Nigeria and Morocco. The study’s goal: to understand how IT leaders can deliver on the strategic potential of emerging technologies by addressing key adoption challenges. Respondents were segmented according to the importance they place on emerging technologies, as well as their pace of adoption.

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#### Market promise meets business reality

Africa is a vast and diverse continent with a projected growth rate rivaling that of some of the fastest-moving economies in the world. Its consumer-facing industries are expected to reach US\$400 billion by 2020.<sup>1</sup> That represents an enormous opportunity for African businesses – if they are prepared to seize it.

Across the continent, demographic shifts are having a profound impact on the market. The percentage of working-age people in the population is expected to double by 2020.<sup>2</sup> Economic development is creating new opportunities for this rising working class, driving strong growth and demand for technology.

Consumer trends in Africa don’t just parallel those in more mature markets – in some cases they lead the way. People on the continent are adopting new technologies at a pace as fast as, or faster than, people in other parts of the world. For example, the number of Facebook users in Egypt alone compares to those in Australia, Taiwan and Japan.<sup>3</sup> There were 650 million mobile subscribers in Africa as of 2012, far more than Europe or the United States. Perhaps the most telling indicator of Africa’s appetite for technology is the growth in mobile payments. African businesses are accelerating their use of offerings like M-Pesa, a mobile-based direct money transfer service. The transaction value handled by M-Pesa and similar services is predicted to top US\$160 billion by 2016.<sup>4</sup> In the US, mobile payments are expected to reach only US\$90 billion by 2017.<sup>5</sup>

African businesses recognize the role that emerging technologies will play in this fast-changing, expanding market. Almost nine in ten IT leaders in Africa rank mobile, analytics, social and cloud as critical to business success. Far fewer, however, are pushing forward with adoption (see Figure 1). We call this Africa’s technology adoption gap.

## The technology adoption gap in Africa

### Importance of emerging technologies



MOBILE



CLOUD

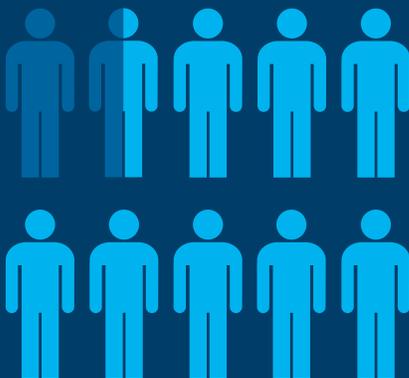


SOCIAL



ANALYTICS

**87%** say emerging technologies are critical for business success



Adoption gap

**34%**

But only **53%** are rapidly adopting

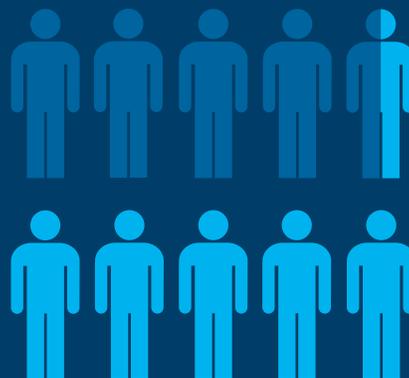


Figure 1—Most IT leaders in Africa recognize the importance of emerging technologies, but far fewer have taken steps to adopt them.

## What's holding businesses back

African leaders are under tremendous pressure to succeed in a competitive landscape. They face disruptive threats from more advanced global competitors that are coming on the scene with a significant advantage. The danger of falling behind is very real if organizations do not move quickly. All this underlines the importance of emerging technologies.

The gap between the value placed on technology and rapid adoption shows that there are significant barriers for many African businesses. The responses highlight three of their most daunting challenges:

- *Strategic business leadership*—Customer demand is shifting IT from its traditional place in the back office to a more strategic role, providing an opportunity for technology leaders to become more involved in business decision-making.
- *IT skills development*—Resource constraints and a lack of available talent in some regions make it difficult to attract and retain skilled professionals.
- *Information security*—The rapid rise of connectivity and data volumes is outstripping the ability of some businesses to maintain security.

These challenges are interrelated. Without the support of senior leadership, for example, it is difficult for IT executives to find funding for skills development or more robust security infrastructure.

## Leadership: Influencing the conversation

Businesses see a clear need to get closer to customers, introduce new products and services faster and leverage vast amounts of information. The adoption of advanced technology is seen as essential to these efforts. Today's IT leaders are being held accountable for top-line revenue, profitability and customer experience—a role that extends beyond the data center. To achieve these goals, IT leaders need to play a greater part in the enterprisewide decision-making process.

### Where IT and business leaders meet

Stepping up to fully grasp the needs and priorities of the business is essential to making the leap from technology manager to enterprise leader. According to the IBM Center for CIO Leadership Global Key Insights study, there are six core competencies critical to maximizing the impact of the IT leader as a business-centered executive.<sup>6</sup>

#### **Leadership**

Articulates the vision, develops the team and mobilizes the organization for change

#### **Innovation and growth**

Builds an innovation capability which ties to business outcomes

#### **Business strategy and process**

Participates in the development of the enterprise strategy

#### **Relationship management and communication**

Builds trusted relationships and deep communication across the C-suite and with key stakeholders

#### **Business management**

Has business management abilities beyond IT functional knowledge, and leads through a structured governance model

#### **Risk management and compliance**

Understands the broader elements of risk management—technology, operations and enterprise risk—and has an opportunity to lead security and risk discussions in the boardroom

According to the survey, more than three-quarters of the respondents have a clear vision of how technology will drive their business forward. Yet, 38 percent do not participate in strategic conversations with business peers. Information technology leaders need to clearly articulate how technology will bring value to the business. The conversation has to go beyond serving basic needs, such as system availability, to addressing the role of technology as an enabler of business strategy.

### Skills: Building the right team for a competitive edge

The ability of today's technology to drive insight and business agility can help enterprises better respond to shifting demand, create and retain customers, and improve their satisfaction. That link between IT and business outcomes places a premium on technology skills. Attracting professionals with the right skills is often difficult. Companies must do more to develop skills from within as well as draw talent from outside.

Less than half of the companies in the survey have developed the level of IT skills they need to close the technology adoption gap (see Figure 2). Organizations need IT professionals prepared to effectively leverage technology in order to move beyond simply "keeping the lights on." For the business to remain competitive, both technology and expertise are essential—for example, the ability to not only generate data and analytic insight, but the knowledge to put it to use.

## IT skills development

**Climbing the IT skills ladder is a challenge. Some organizations are better able to innovate and transform.**



Figure 2—To properly leverage emerging technologies, companies must prioritize development of robust skills. Less than half of companies in Africa have been able to advance up the development ladder.

### Security: Holistically addressing a rising concern

More than half of survey respondents highlighted security related to emerging technologies as a top-of-mind issue. Customers and workers are using more data than ever and the hazards can outpace the organization’s ability to develop and maintain adequate security measures. With the African market growing and evolving so rapidly, there is an urgent need to implement strong data security measures in parallel with the rollout of new technologies. However, insufficient investment in secure systems, inadequate policies and governance, and a need for greater awareness of security issues all combine to slow technology adoption.

Like IT skill development, security is an issue that relies on the support of senior management. IT leaders must acquire the resources they need to develop, implement and enforce effective security measures, both on the technical and the policy side. They also need to clearly communicate the need for security to the whole enterprise so that workers do their part to protect sensitive data.

### Setting the pace on technology adoption

The leading third of companies surveyed are Pacesetters that both prioritize emerging technologies and have succeeded in deploying them at an accelerated pace (see Figure 3).

While many of their peers struggle with operational issues, the Pacesetters are acting on their strategic vision and moving quickly to establish competitive advantage.

**Pacesetter technology adoption**

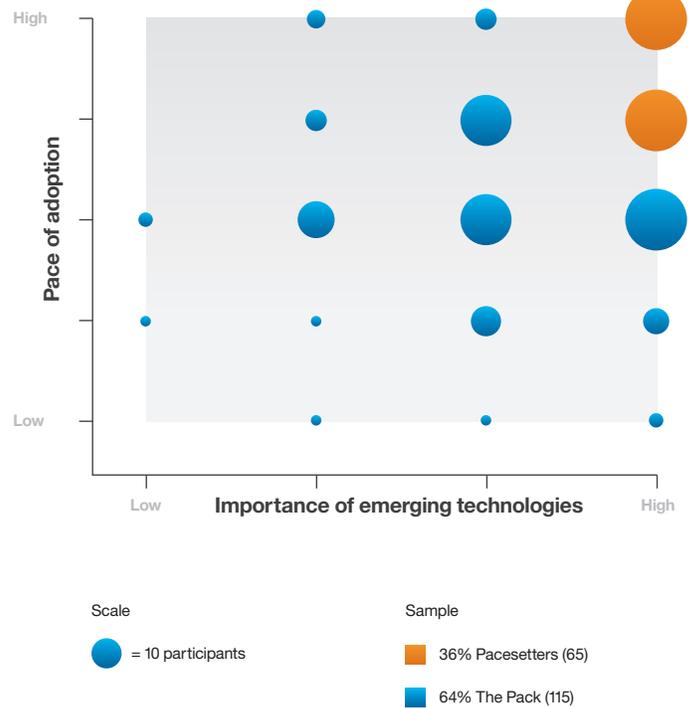


Figure 3 – Pacesetters see the strategic potential of emerging technologies and act on their aspirations.

A closer look at how the Pacesetters operate reveals some of the key actions they've taken to close the technology adoption gap (see Figure 4). Compared to their peers, IT leaders show clear differences in how they collaborate with their colleagues and address critical business outcomes.

Many Pacesetter practices are rooted in how the organization itself works. IT leaders are focusing not just on the technology itself, but also on the systemic changes needed to transform the enterprise in more fundamental ways. This includes internal transparency and strategic dialogue. Pacesetters seek to create a business with the flexibility and foresight to capitalize on the potential of emerging technologies.

**Pacesetter practices**

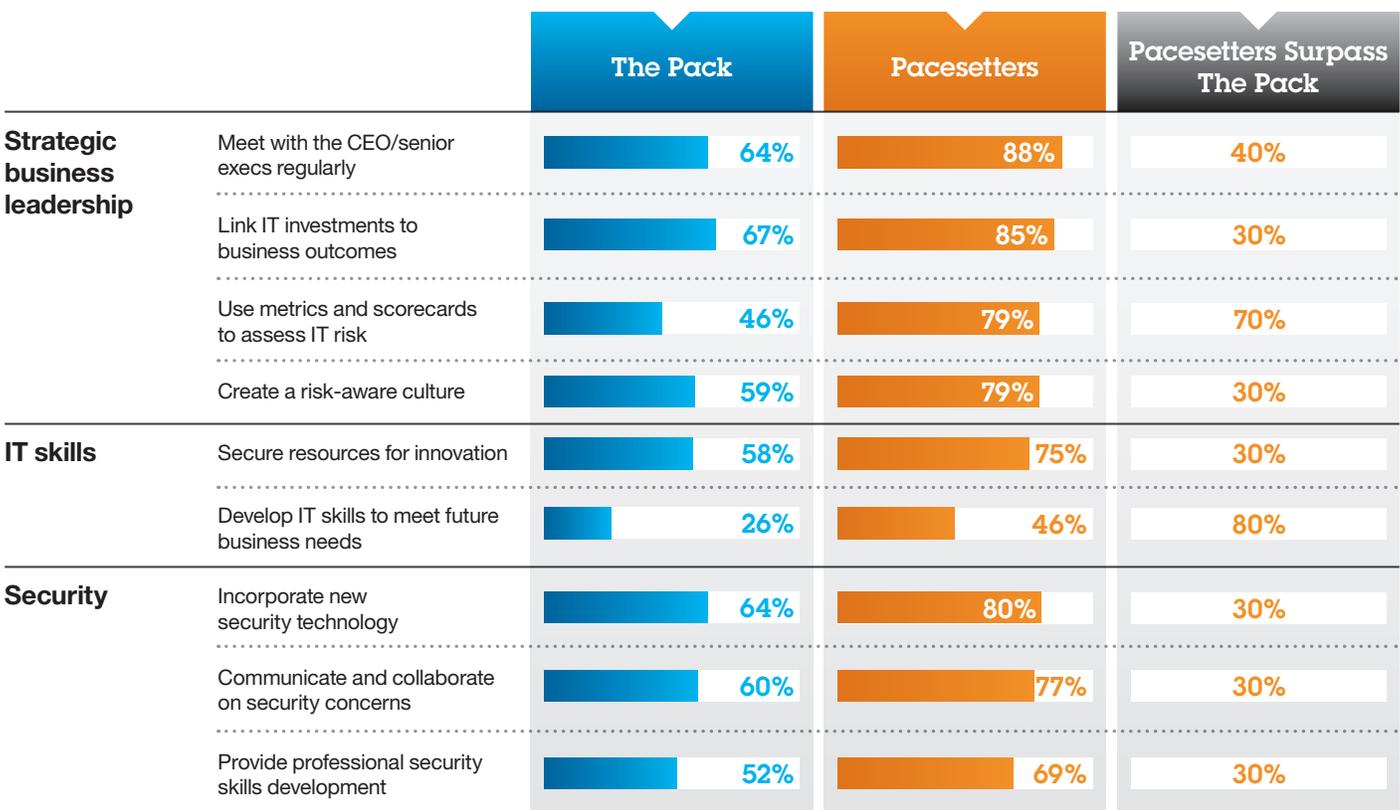


Figure 4—Pacesetting companies are far more likely to strengthen strategic business leadership, develop IT skills and implement security measures that position the enterprise for technology-driven success.

### How IT becomes part of the strategic picture

Forward-thinking African companies have found ways to empower their IT leaders through a cultural shift. These enterprises seek to manage, rather than avoid, business risk by using analytics to create a corporate culture that bases decisions on real information.

More importantly, the Pacesetters garner management support. For these companies, IT is integral to business strategy, not just a supporting player in the company's success. This level of internal engagement requires clear, open communication and collaboration between IT leaders and their business peers, something the Pacesetters do 40 percent more often.

Pacesetters do more to tangibly demonstrate the value of technology. The study found that they use metrics and scorecards 70 percent more often than their peers in order to link IT to business outcomes. Pacesetters also manage risk more aggressively through rigorous assessment. At the same time, they are 30 percent more likely to strengthen communication and leadership skills to create a more risk-aware culture.

### What Pacesetters do to build the IT skill base

Pacesetters know what is needed for long-term competitiveness: cross-functional knowledge that spans both business and IT. These companies are 80 percent more likely to proactively develop the professional skills essential to reach future goals, rather than simply addressing immediate project needs.

In the eyes of Pacesetters, leadership support for skills development is vital. Their IT leaders make a solid business case for development and formulate workable, future-focused plans, instituting a formal process to nurture IT skills.

### For Pacesetters, security is a competitive issue

African companies are deeply concerned about the explosive growth of data accessed through mobile devices and the cloud. The Pacesetters, however, are better prepared to limit the risk. That makes bold moves to seize market opportunity less hazardous from a security standpoint.

Pacesetters aim to make protecting systems and information a shared priority, working to give the entire organization a proactive focus on security. They reach out and collaborate on the issue nearly a third more than other organizations.

Pacesetting companies also place a higher priority on investment in security. They close gaps in preparedness because they are 30 percent more likely to employ new technologies and to bolster security skills and expertise.

### The power of analytics: Reining in healthcare costs

Discovery Health is one of South Africa's strongest insurance companies. Its strategy: a broader product line, offered at a cost as much as 15 percent lower than the competition.

Companies in the competitive health insurance industry are pushing to keep members healthy. Using technology, Discovery is able to go further by being proactive with care options. Instead of waiting for members to get sick, Discovery looks deeper to find out which members are vulnerable to certain medical conditions and what can be done to mitigate their impact.

A corps of Discovery analysts uses a growing volume of clinical, demographic and billing data to strengthen the company's clinical prediction capabilities. This, in turn, helps the company develop prevention programs that can help people avoid health issues.<sup>7</sup>

## Closing the adoption gap

For African enterprises, accelerating technology adoption opens the door to innovation. IT can help a company become more efficient and effective in terms of its core processes, but the promise of mobile, social, analytics and cloud extends much further. New business models take shape, built on deeper customer insight, closer engagement and greater responsiveness to changing demands.

The behavior of Pacesetters points the way toward faster and more extensive adoption of emerging technologies. It's up to IT leaders to advance that agenda by addressing their own organization's abilities in three key challenge areas (see Figure 5). Thought should be given to IT leaders' involvement in *business strategy development* and how best to communicate

the business value of emerging technology opportunities. *Existing skills* that the business can leverage should be examined with an eye toward opportunities for improvement. And finally, the *issue of security* should be considered more holistically, balancing risk against opportunity.

It's important to recognize that closing the adoption gap is in many ways about creating a business that runs more effectively. If your company sees the potential of emerging technologies but is struggling with implementation, the questions in the table below might be the place to start. Consider underlying business factors, from the way decisions are made to how prepared your organization is to build on its strengths and take advantage of new opportunities.

### Questions to consider

Assess strategic leadership competencies	Build the skills you need to innovate	Address security preparedness and maturity
What role do your IT leaders play in designing business strategy?	With whom do you partner to realize your vision?	How does your organization communicate and collaborate regarding security concerns?
How do you link IT investments to business outcomes?	How do you go beyond addressing immediate project needs?	How do you foster the development of security skills for the workforce?
How often do you meet with your business peers—and how deep are those relationships?	How are you developing the IT skills to meet future business needs?	How do you educate your workforce to become more attentive to security?
How effective are your metrics and scorecards?	How do you enable your staff to deliver on the promise of emerging technologies?	What additional security technologies do you need to protect your data and users?

Figure 5 - The first step in closing the technology adoption gap is to understand where the organization stands today. The right questions can reveal strengths and weaknesses, helping to shape IT strategy that also drives business success.

## What's your path?

Knowing where the biggest challenges are and where the Pacesetters excel doesn't mean there is a single prescription to close the technology adoption gap. Given the diversity in the African market, circumstances facing enterprises may vary widely. Some businesses may require extensive transformation, both cultural and technical, if they are to bring out the full value of emerging technologies. Others may trail in one targeted area, such as the availability of IT skills.

Regardless of individual realities, the opportunity of a billion-strong market poised for explosive growth cannot be denied. The Pacesetters have seen the potential and taken action to help them realize it. With the right strategy, their peers can follow suit.

### Leveraging social: Standing out in a crowded banking marketplace

Johannesburg-based Nedbank recognized the growing importance of social media as a marketing tool. It actively reached out to customers through Facebook, LinkedIn and Twitter, as well as through blogs and customer forums.

The bank had stitched together a basic analytics capability to take advantage of the data coming back from all of these sources. This proved inefficient. Slow response was standing in the way of the bank's ability to take action on the insights it generated.

Predictive modeling and collaboration helped Nedbank turn the corner. Today, social media analytics are integrated into the bank's systems and processes. Costs are down by US\$105,000 per year and the customer service department has achieved a 20 percent productivity increase.<sup>8</sup>

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