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How to harness technology for growth in South Africa

Digitisation and automation could result in a net gain of up to 1.2 million jobs in South Africa by 2030. But if companies don't act swiftly to take advantage of the opportunities these technologies present to drive innovation and growth, the country will suffer.

by Nomfanelo Magwentshu and Agesan Rajagopaul



Much of the public debate about digitisation and automation tends to focus on fears that technology will create job losses. But a recent analysis from McKinsey is showing that technology-related gains could triple South Africa's productivity growth, more than double growth in its per capita income, and add more than a percentage point to its real-GDP-growth rate over the next decade. Productivity improvements, strategic infrastructure development, and the evolution of technology opening up new roles that we don't even know of yet could mean a net gain in jobs of around 1.2 million in South Africa by 2030.

But these gains are by no means guaranteed. Businesses must act swiftly to take advantage of the opportunities these technologies present to drive innovation and growth or risk an uncertain future. To come out ahead in the Fourth Industrial Revolution, South African companies need to change the way they do things in three key areas: business strategy, skill development, and ways of working.

1. Rethink business strategy

The advance of technology—including machine learning, artificial intelligence, and advanced robotics—is rapid and unstoppable. An analysis of companies around the world shows that those that enthusiastically embrace this reality generate greater revenue and employment growth than those that don't.

Our research, including analysis by the McKinsey Global Institute and a survey of about 70 South African leaders, finds that technology could unlock greater productivity across many sectors of the economy. In metal beneficiation and fabrication, for example, robot-assisted production could reduce human error and greatly increase efficiency. In mining, underground-mine automation could improve safety and reduce costs. In financial services, digitisation could improve customer experience and drive greater efficiency.

To realise these benefits—and more—companies need to rethink their business strategies to go beyond using technology merely to cut costs. In responding to changes in the market, they must adapt their business models and use technology to develop more innovative products and services that give them a competitive edge.

Sanlam chairman Johan van Zyl, one of the leaders we spoke to during this research, says that rethinking strategy and incorporating scalable digital models are essential to thrive in the digital age. "Technology is transforming industries much faster than most people expect," he says. And those that don't adapt will likely fall by the wayside.

2. Focus on future skills

Kuseni Dlamini, chairman of Massmart, told us that digitisation will create more jobs, not fewer, but only if companies help employees to transition to new jobs that require new skills. "New training and career-development interventions will be needed to enable people to reposition themselves for the demands of the future. We should embrace technology as a catalyst to repurpose and reskill our people, enabling them to be better employees and better human beings."

Accordingly, many companies need to upgrade their strategic workforce planning to become much more data backed and business led. They will also need to reskill and upskill existing employees at scale: most companies simply can't hire or contract in the quantity of new skills they require. To prepare for digitisation, companies must harness the latest adult-learning science, rigorously track return on investment, and build employee buy-in for the change. They need to take a long-term view on how technology will affect their workforces over the next five years and beyond and to adopt smart approaches to reskilling in the next two to three years, before job changes occur.

The shifts required are far reaching, but rather than being paralysed by the sheer scale of the challenge, companies can start small.

Fred Swaniker, cofounder of the African Leadership Academy, who also participated in our research, says companies can make the required shifts needed by embracing continuous learning.

"Today we live in an era of ubiquitous information, drastically changing how companies and their workforces learn. Companies can now draw from a universe of online learning resources and develop customised programmes for their staff. We're moving from highly structured, finite learning models to decentralised, agile, flexible, continuous-learning and -thinking models, empowering employees to keep learning as they need to as the world evolves."

3. Embrace new ways of working

To future-proof investments in reskilling and hiring and to maximise the productivity of workforces, companies will need to adapt to evolving employee expectations and ways of working. Companies can build greater agility into their organisations and use people analytics to understand what drives employee engagement. This includes a greater focus on meaningful work, flexibility, autonomy, continuous growth, and connection.

As Professor Tawana Kupe, vice-chancellor of the University of Pretoria, pointed out to us, technology can free up people from routine, repetitive work and enable them to take on higher-level work, decision making, and critical thinking. He says, "I don't believe that robots are just going to eat up people's jobs. Instead, there can be a complementary relationship."

It is worth noting that these new ways of working will benefit women in particular. McKinsey's analysis estimates that by 2030, technology adoption could increase the percentage of women in South Africa's workforce to 45 percent—nearly two percentage points higher than seen today—and create 1.6 million new jobs for women. In part, this is because of the removal of factors traditionally considered physical barriers to women's participation. As other studies have noted, diversity is good for the bottom line more generally, so the increase of women in the workforce is likely to have a positive impact on an organisation's sustainability.

A collaborative approach

The shifts required are far reaching, but rather than being paralysed by the sheer scale of the challenge, companies can start small. The important thing is that they must not waste further time in getting started. It is also critical to point out that businesses can't bring about the necessary shifts on their own. Governments, educational institutions, and individuals all have a role to play, and it will be the combined impact of these efforts that will make a difference.

Governments, for example, can mitigate the impact of automation-related job losses by investing in infrastructure to foster job creation. They can also invest in human capital by helping educational institutions meet future needs through strengthening science, technology, engineering, and mathematics subjects, especially in primary

school. As Phumzile Mlambo-Ngcuka, executive director of UN Women, stresses, the foundation must be to ensure universal access to high-quality public education. "Also, the introduction of digital skills at an early age has become quite urgent," she says.

Investing in vocational training is also key. Examples from countries that are successfully navigating the digital transition show that enabling low-friction access to courses that help build relevant skills is vital to helping citizens adjust.

Individuals, in the meantime, need to embrace lifelong learning and hone their entrepreneurial and

behavioural capabilities and mind-sets to prepare themselves for the future world of work.

If we work in concert in bold and imaginative ways, we can harness digitisation to catalyse a skills revolution in South Africa—and create millions of new, high-quality jobs. The case to act is urgent and compelling. No South African needs reminding of the country's need to reignite growth and create jobs.

And if we fail to take advantage of this historic opportunity and mismanage the massive workforce transition that lies ahead, the stark reality is that we will face a future of growing unemployment and inequality. In a very real way, our future is in our hands.

This article is based on a new report, *The future of work in South Africa: Digitisation, productivity and job creation*, on McKinsey.com

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