

Connecting Kenya: AI as a government tool to accelerate manufacturing

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As exciting as the emergence of accessible and powerful artificial intelligence may be. There's no single other exponential technology causing as much uncertainty among governments, businesses, and citizens.



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While many advanced economies have embraced AI as an integral part of their industrial and manufacturing sectors. Emerging economies are understandably nervous about the effect AI will have on job security, income levels, and economic growth.

Analyst firms predict that 30% to 40% of current jobs are at risk of full automation. Pointing all these to a future where millions of workers will be redeployed to new, possibly not even yet invented jobs.

However, the economic potential is immense: PwC expects global GDP to be 14% higher in 2030 as a result of AI, contributing \$15.7tn to the global economy. Half of this is due to labour productivity improvements; the other half due to increased consumer demand resulting from product innovation supported by AI.

The question for governments in emerging economies is this: how can AI support - not undermine - efforts to boost economic growth and job creation while still ensuring global competitiveness?

In Kenya, AI is perfectly positioned to support some - if not all - of the government's top priorities.

Kenya aims high with Big Four

At the end of 2017, Kenyan President Uhuru Kenyatta announced his Big Four Agenda, a shortlist of key priorities his government will drive over the next five years, namely:

1. Improve food security to ensure 100% of Kenya's food and nutrition requirements are met;
2. Ensure access to affordable housing by constructing 500,000 affordable homes;
3. Enhance manufacturing to grow its contribution to GDP from 9.2% to 20%; and
4. Drive affordable healthcare by achieving 100% universal healthcare for all its citizens.

There is a strong case to make for the application of AI in achieving each of these four grand goals. Food security can be improved through AI's unmatched ability to analyse vast amounts of economic and other data to develop accurate predictions and models for the expected output of certain staple foods, for example.



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Technology also has a role to play in minimising food waste: if an algorithm detects a potential oversupply of certain products, the government could introduce incentives for farmers to plant alternative crops. In both healthcare and housing, AI could supplement government efforts for improved tracking of access to both health care and housing in order to produce accurate insights that feed directly into government policy.

In the manufacturing sector, opportunities for stimulating economic growth and attracting foreign direct investment deserve a closer look. According to latest World Bank report on Kenya's economic outlook, the country's GDP is expected to grow by 5.8% in 2019 despite a sluggish recovery for the manufacturing sector, which is coming off the weak growth of 0.5% in 2017.

If the government takes an innovative look at the possibilities of AI in Kenya's manufacturing sector and introduces the correct policies and interventions, it could both improve productivity (and by the effect the sector's contribution to GDP) as well as attract much-needed foreign investment. Let's look at how.

Creating an AI-powered investment super-portal

Imagine for a moment an investor in the UK is seeking opportunities to expand their manufacturing portfolio to a high-growth emerging market. Following a web search, they land on a Kenyan government web portal for potential investors that is supported by embedded AI.

The first thing they see is deep analytics according to the country and various counties therein, showing productivity levels, output, investment volume, growth, and more. Based on the investor's area of interest, the portal then provides machine

learning-powered suggestions of where they could invest.

An impressed investor registers, an embedded AI-powered chatbot guides and answers their questions. The lead created via this process is handed to a dedicated resource within the Ministry of Foreign Affairs and International Trade or the Ministry of Industrialisation and Enterprise Development, who reach out to the investor and closes the loop.

This process may seem simple, but it is built upon a system that is governed by an open data policy similar to the ones so successfully used by Japan, the UK or US, as well as a suite of the latest exponential technologies including AI.

Any investor with the means and desire to enter the Kenyan manufacturing sector would find it hard to resist this level of efficiency and transparency. And as more investors enter, manufacturing sector growth accelerates, job creation flourishes, and the country takes one more step toward the bright future envisioned by President Kenyatta and his cabinet.

AI is an inevitable outcome of humankind's accelerating technological progress. It raises many questions about the future of work, life and government. And while some reservations over its potential consequences are well deserved, its potential for accelerating Africa's - and Kenya's - economic advancement is impossible to ignore.

Smart government policies guiding and facilitating the use of AI in key industries now will create an environment where countries can enjoy the benefits for decades to come. It's time our leaders took a pragmatic view of the role of AI in improving the lives of all citizens.

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