

DIGILOGIC INSIGHTS #9: Technology and training build logistics industry in Ghana

AHMED AGYAPONG, Associate Professor of Strategic Management at Kwame Nkrumah University of Science & Technology (KNUST) and **HENRY KOFI MENSAH**, Associate Professor of Management at KNUST talk to DIGILOGIC about logistics being part of the digital revolution.

Prof. Ahmed Agyapong's research fields include entrepreneurship, family and small businesses, and strategic management. He teaches logistics at undergraduate and postgraduate levels.

Prof. Henry Kofi Mensah's research covers organizational management, business sustainability and small business strategy with a focus on supply chains, management, and logistics in general.

Logistics solutions

Ghana needs a coherent logistics strategy, Ahmed Agyapong begins, built around a strong policy framework that brings different government departments together. As a supporter of a free market system, he would like to see the private sector more involved as well. Investors will not be ready to put their money in the Agri or transport sectors, he argues, unless: "We create an enabling environment in terms of policy that make investment worthwhile."

Henry Kofi Mensah is keen to emphasise that as technologies develop so do opportunities, particularly in emerging start-ups that are digitising operations across the logistics sector: "Very important innovations are coming along," he explains, "This is the time when we need to take advantage of the technologies."

The challenges

During and after Covid, there were many disruptions to supply chains and the logistics sector, some of which Ghana is still grappling with. Even though Ghana is one of the few countries that invested heavily in the expansion of electricity supplies to rural areas, a key challenge is continuing disruption. This instability, says Agyapong, "exposed almost every part of the economy, particularly the supply chains."

While every country post-Covid is affected by food inflation, in Ghana it went over 50 per cent. This was partly caused by transportation-related issues, explains Agyapong, and partly because key foodstuffs had to be imported from overseas. The war in Ukraine affected crucial wheat and maize supplies to many countries in Africa, including Ghana.

A continuing challenge for Ghana, explains Agyapong, is transporting foodstuffs from the farm gates to the urban centres. "The transport network must expand if Ghana is to open-up", he observes. The country is over-dependent on a road system on which vehicles constantly break down, causing perishable goods to spoil. Accidents are on the increase. "All this contributes to the cost of doing business because a journey that should have taken two hours, ends up taking five hours." The potential for a better railway network and sea transportation facilities also needs to be explored as a priority to open-up the country to more wide-ranging and efficient routes.

Ghana's Agri sector is dominated by small farmers, producing small quantities of crops. This means there are often delays in travelling from one farm to the next in order to collect goods from the farm-gates to deliver onwards. As a result, many drivers may not be interested in driving the distances and post-harvest losses pose a continuing challenge. Goods, therefore,



that are very cheap in rural areas become extremely expensive in the cities: all of which contributes to high food inflation.

Agyapong identifies the need to move away from subsistence farming to investing in large-scale commercial farming, especially in critical foodstuffs such as maize, rice, tomatoes and soya beans. This move would reduce the reliance on imports, help build higher profits and create new jobs for young people.

Looking to the future

Online services in Ghana, like elsewhere, have increased hugely since Covid whether that is home delivery for restaurant orders or hire-a-ride apps like Uber and Bolt. Although they are competitors, both companies are taking jobs away from existing taxi services. The impact of technology, says Agyapong, needs to be formalised so that digitalisation boosts a sector.

Mensah sees GPS tracking devices as being key in improving supply-chains and just-in-time deliveries. “Trackers can monitor distances, vehicle locations and breakdowns. This means there can be quick interventions to deal with any problems. Most companies are now applying tracking technologies and they are a major future trend.” Digital devices will also help greatly in bringing down post-harvest losses, he predicts.

However, it is sometimes difficult to introduce digitisation because farming activities are largely traditional and handled by farmers who are not able to read and not familiar with a digital world. One solution, offers Agyapong, is to create many more co-operatives while introducing an informal education plan: “So that farmers can learn basic technology to help with food preservation and efficient systems to get their products to their destination.”

Europe, America and China are increasingly investing in Africa. While this is broadly welcome, the risk is that multinationals could end up competing with the small-scale industries, which contribute over 70 per cent of employment opportunities across Africa. “If care is not taken to bring small-scale farmers together to learn the appropriate technology, job losses could rise. We need to support them with employability skills so that they can learn about technologies, artificial intelligence and database management to manage their businesses and remain competitive,” urges Agyapong. “Training is fundamental to make sure everyone has the right skills to perform the various roles.”

Work is continuing to find more sustainable alternatives to expensive and unreliable electricity supplies. Mensah explains how people are being encouraged to produce solar-powered and other self-help electrification alternatives. One innovation, for example, successfully generates power from car batteries for back-up when the main electricity grid is switched off. “There’s been a big increase in investment in the area of solar. These ideas greatly help with cold-chain solutions,” says Mensah.

Over the next ten years, digitisation projects will increase greatly across key government departments. This builds an infrastructure that will benefit the logistics sector. Information sharing becomes easier and helps to reduce transportation and distribution costs. On a wider scale, the impact of AfCFTA (the African Continental Free Trade Area) that involves 55 countries and eight Regional Economic Communities, will play an important part in opening-up the logistics sector across the entire continent.

Mensah says that Ghana will also benefit from the emerging technologies coming from outside the country, such as AI, better goods tracking and 5G. “Once we have good connectivity and digitalized activity, we expect that the risks associated with our supply chains and logistics would also reduce.” This means that productivity would rise and the road networks become safer. “There will”, he predicts “be a total revolution in logistics.”

