Chapter 66
Enhancing Africa's Agri-Value Chains Through Digital Platforms

Immanuel Ovemeso Umukoro
https://orcid.org/0000-0002-2054-5070
Lagos Business School, Pan-Atlantic University, Lagos, Nigeria

ABSTRACT

Africa's food security may be at risk if food production does not increase, especially given that by 2023, African food market will more than triple in demand by moving from $300 billion to $1 trillion. However, country-specific interventions have not provided the desired impact towards guaranteeing food security. Across different agricultural value chains, wastages due to lack of access to markets, poor storage, lack of logistics, transport and power infrastructure, among several others. There is, however, the possibility of strengthening these value chains with the right technology deployment. This requires significant investment, which is most effective using collaborative stakeholder approach. The private sector has shown signs of resilience in investing in agriculture by finding the right business models such as digital platforms which are in themselves scalable businesses. Through an interrogative literature review and analysis of case studies, this chapter explores the role of digital platforms in enhancing diverse agricultural value chains across Africa.

INTRODUCTION

"Digitisation is crumbling all sorts of borders, and African agriculture will be deeply impacted. Technologies can help stimulate innovation for sustainable agri-food systems and produce better and safer food while preserving natural resources and biodiversity. But we need to be conscious and support solutions that are sustainable and that are tailored to countries' needs and embedded into conducive and broader innovation systems. This is in line with the EU's Digital4Development and SDGs agendas that we are proudly promoting". -- Leonard Mizzi, Head of Unit at the European Commission, Directorate-General (DG) for International Cooperation and Development

DOI: 10.4018/978-1-6684-5352-0.ch066

Globally, about 2 billion people are suffering from food crisis ranging from extreme hunger to moderate levels of food insecurity because they do not have regular access to safe, nutritious and sufficient food (Egal, 2019). It is estimated that by 2023, the African food market will more than triple in demand by moving from $300 billion to $1 trillion. The inability to access quality and sufficient food supply leads to malnutrition and affects people of all ages, although most threatening among children and adolescents. To address this global challenge, the 2019 State of Food Security and Nutrition report called for country-specific approaches. It recommended that priority be given to countries relying heavily on primary commodity exports and imports. In Africa, there continues to be an increase in the prevalence of under-nourishment. FAO, IFAD and UNICEF (2019) report that globally, over 50 million children under the age of five are malnourished – a quarter of which are from Sub Saharan Africa. Tsan et al. (2019) report that to meet continental food demand and stave off nutritional insecurity, the continent will need to triple agricultural productivity and manage climate change as well.

The quest to end global food insecurity, hunger and malnutrition remain a pressing ethical priority globally (von Braun, 2010). Despite these challenges, much of agricultural produce is lost across the value chain. Food security, nutrition and hunger alleviation on a global scale are, however, within reach if the right technological innovations are accepted and implemented at all levels of agricultural practices. Premanandh (2011) notes that the anticipated benefits of modern technologies suggest a level of food production that will sustain the global population. However, political will and sufficient investments in modern agriculture are needed to alleviate the food crisis in developing countries. For instance, Nigeria, South Sudan, Central African Republic, Somalia, Republic of Niger, and other African countries continue to battle inadequate capacity to meet their local food demand, mainly due to an under-performing agricultural sector and other factors such as political instability and insurgency (Husted et al., 2019). This calls for an assessment of the state of the agricultural sector from both a policy perspective and technology deployment. Such an assessment and understanding provide a springboard towards accelerating development efforts while putting in perspective the root causes that have impeded the sector's development efforts at local, state and national levels.

The poor state of agriculture and the resultant food scarcity can be attributed to several challenges such as misalignment of policies with development initiatives and ailing infrastructure leading to heavy reliance on importation of both raw materials and finished agricultural produce. Other challenges include the high cost of processing and storage equipment (where commercial agriculture exists). Despite the rising global food demand and increasing population, many African governments have not made significant investment in agriculture. Tsan et al. (2019) note that the African Union's 2018 biennial review of the Malabo Declaration shows that fewer than half of forty-seven countries are currently on track to meet their commitments by 2025. In today technology-driven world, many national governments are investing heavily on technology to combat cybersecurity, while fostering digital inclusion in the wake of emerging digital business models. However, investment in agriculture by African governments remains low despite rising food demand.

The continued reliance on agricultural produce, mainly derived from crude farming leaves many questions unanswered including whether African governments are prepared to handle food crisis when it arises. Developing a thriving agricultural sector can address several developmental challenges as well as promote the attainment of the Sustainable Development Goals (SDGs). Examples include SDGs 1 (no poverty), SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 8 (decent work and economic growth), and even SDG 9 (industry, innovation and infrastructure). This is even more urgent given that agriculture accounts for a large proportion of national GDPs across Africa, with the sector