

TOWARDS A DIGITAL ONE-STOP-SHOP FOR AFRICAN PRODUCERS?

Strategic Decisions of Digital Agricultural Platform Providers

The rapid spread of the mobile phone across Africa has stimulated a large number of digital services targeted at small-scale producers. More recently, such services are increasingly being bundled and offered via integrated digital agricultural platforms. These platforms bring together individuals and organizations to innovate or interact, with the potential for nonlinear increases in utility and value. Most digital agricultural platform companies in Africa were created by tech entrepreneurs, without a strategic partner on board to provide capital, data or clients. Many of them have received technical and financial support from development institutions, non-governmental organisations and impact-investors.

Digital agricultural platform providers are faced with a number of strategic decisions when seeking to scale their operations. The **business model** needs to be based on a realistic assessment of potential benefits a platform could grant to its users and how the services can be monetized (e.g., via transaction-fees, access-fees, fees for additional services, special fee arrangements for service providers and advertisers). Moreover, there is the need to solve the **chicken-and-egg problem**, namely the strategic decision which user-group to attract first on the platform. Additionally, the platform companies need to develop a **funding strategy** in line with projected establishment costs and working capital needs. **How are digital agricultural platform companies in Africa coping with these strategic challenges?**

The decision on the business model: Markets characterized by fragmentation and lack of transparency are considered the most suitable ones for the use of platforms. The African market for digital agricultural services certainly exhibits these features. However, the market also exhibits some other, more adverse features (e.g. low level of literacy, inefficient production methods with low yields and low quality, lack of access to financial services). Many platform-companies, in particular end-to-end value chain integrators, deal with these market features by

Research method

The findings presented in this policy brief draw on four sources of information:

- (i) publicly available information on the internet about six digital agricultural platform-companies (DigiFarm, FarmCrowdy, AgroMall, Twiga Foods, Tulaa and AgroCenta)
- (ii) a questionnaire completed by three of these companies
- (iii) interviews with company representatives (AgroMall, AgroCenta, Twiga) and
- (iv) interviews with stakeholders of the companies and researchers specializing in platforms

building vertical elements into their business models. Most common vertical elements are the introduction of a field force, logistics-services and arranging the offtake.

Business models are adjusted to existing market circumstances. If these circumstances change due to the empowerment of a large number of smallholders in certain states or regions, a business model with strong vertical features may no longer be in line with the market. Instead, a lighter platform model, built on horizontal partnerships with service providers, requiring less working-capital and labour, will likely to be more market-compliant. In a scenario where farmers are empowered and are also part of some kind of cooperative structures among themselves, platform companies face new competition: Bulk commodity buyers will then approach farmers directly, bypassing existing platforms.

The chicken-and-egg problem: There are several ways of solving this problem. Some digital agricultural platform companies in Africa pursue a zig-zag approach, whereby they on-board different user groups (e.g.



producers, buyers, input suppliers) simultaneously to keep the working capital outlay low. Others on-board producers first and collect data on a large scale to improve their delivery capabilities to industrial buyers interested in large quantities and to banks. With this approach, it takes longer until the first capital reflows occur and thus, more working capital is required.

The funding strategy: Most African platform companies face difficulties to ensure sufficient funding.

Even companies that have already reached a more advanced state of development with several thousand registered farmers and a market-proven business model often operate on a very thin capital base. This limits their resilience and their possibility to invest in their growth. Funding requirements depend on the business model adopted and the approach pursued to solve the chicken-and-egg problem. Capital planning must be sufficiently long-term and not too tight in order to prove resilient in the event of unexpected adverse events.

POLICY RECOMMENDATIONS

To support the positive impact of digital agricultural platforms in Africa, the following measures could be taken by governments, development finance institutions, non-governmental organizations, foundations and impact investors:

- **Facilitate access to venture capital for platform companies.** Venture capital remains scarce in Sub-Saharan Africa. Development finance institutions should fund a larger number of African venture capital firms to act as their intermediaries – with a view to achieve a sufficient continent-wide supply of venture capital, which could particularly benefit innovative, early-stage digital service companies for agriculture.
- **Incentivize digital platform companies to devote more resources to on-boarding and training of farmers in remote areas.** Impact-linked grants or finance would be the most suitable financing instruments in this regard.
- **Support a broad rolling out of mobile connectivity and physical infrastructure.** Under-investment in infrastructure in remote areas deepens the regional inequalities also in terms of access to digital services for agriculture.
- **Strengthen regulatory frameworks concerning data ownership and privacy.** Platforms are collecting vast amounts of data which require high standards of data stewardship. Compliance with regulatory frameworks should be adequately monitored.
- **Support human capacity building in particular with regard to IT.** IT-savvy personnel with the skills to operate digital processes is scarce and expensive to hire. Adequate investments in respective educational programs would simultaneously stimulate employment of young people in rural environments.
- **Invest in further research related to digital agricultural platforms.** Knowledge gaps include insufficient theory development, limited independently collected evidence of platforms' impact, and options to improve their capacity to adapt to changing market circumstances.

This Policy Brief is based on the study: von Bismarck-Osten, M. 2021. Understanding Strategic Decisions of Digital Agricultural Platform Companies. Six Case Studies of Sub-Saharan African Platforms, ZEF Working Paper 209. Available at www.zef.de.

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