



# Business-to-Business-to-Farmer

The case for working through intermediaries to reach smallholder farmers

**Theme:** Business-to-Business-to-Farmer Business Models

**Companies:** CropNuts  
Ignitia  
iPOS  
agriBORA

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# The challenge of reaching smallholder farmers at scale

In recent years, there has been a great deal of focus on the concept that technology and the rise of digital platforms would facilitate 'disintermediation' in the agriculture sector in East Africa, making it possible for agribusinesses to reach large numbers of smallholder farmers directly. Digital platforms promised to cut out middlemen, streamline value chains, and deliver information, inputs, and finance directly, via digital channels. In many markets, however, this has proven more difficult than expected, ultimately leading to the closure of some high-profile agribusinesses.

Across rural markets, direct-to-farmer business models consistently run into similar structural realities: small and dispersed customers, low margins or customer lifetime value, limited digital literacy, high acquisition costs, and deeply embedded informal market actors who continue to play essential roles in aggregation, credit, logistics, and trust-building. As a result, many highly publicised agritech businesses have struggled to scale or sustain themselves. The 'disintermediation' narrative, where technology is used to reduce the number of intermediary players, too often does not reflect how agricultural markets function in reality.

A different approach – a Business-to-Business-to-Farmer (B2B2F) model – is now emerging, that recognises the central role of intermediaries and works with existing market structures using digital technologies, rather than attempting to bypass them. These models attempt to provide a value-adding product or service that complements existing structures in value chains, while intermediaries bring what most digital tools cannot: trusted relationships, local presence, embedded incentives, and the operational capacity to reach farmers at scale.

This case study showcases CASA Kenya-supported agribusinesses piloting B2B2F models, presents common challenges experienced by these businesses, and presents a set of emerging lessons about when and how B2B2F models are most likely to succeed.



## What do we mean by B2B2F within the CASA Kenya portfolio?

B2B2F refers to models in which a company provides a product or service to an intermediary, which then passes on the product or service, or its value, to the farmer through the intermediary's existing networks and relationships. The intermediary may be an aggregator, agrodealer, cooperative, processor, or distributor that already works closely with farmers and is embedded in local markets.

Importantly, we do not classify digitally-enabled distribution or aggregation businesses as B2B2F. Instead, we define B2B2F businesses as offering distinct services or products – such as technology, advisory tools, soil testing, weather information, or financing solutions – that strengthen the intermediary's ability to serve farmers.

By equipping intermediaries with these capabilities, B2B2F models seek to improve how information, inputs, finance, and market access reach farmers, working with existing market structures rather than attempting to bypass them.



CASA works with a diverse set of agribusinesses experimenting with B2B2F models across products and services (including finance). Through targeted technical assistance (TA), CASA Kenya is supporting these businesses to test, adapt, and refine B2B2F models. The portfolio reflects a range of B2B2F applications, from climate and agronomy services to irrigation technology, soil diagnostics, digital merchant tools, and agri-finance platforms.



CropNuts is an established SME providing soil testing and laboratory services in the Kenyan agricultural sector, predominantly serving commercial farms. Interested in extending its soil testing offer to the smallholder market segment, CropNuts developed a cost-effective software-only solution known as the Spectral Prediction Engine (SPE).

## CASA support:

CASA is supporting CropNuts in refining the B2B model for delivering soil health testing and fertiliser recommendations to smallholder farmers. This includes support for partnership management and targeted technical development to strengthen the smallholder value proposition of the SPE. Through this support, CropNuts has launched partnerships with nine (9) different intermediaries and reached over 7000 smallholder farmers with soil testing services.

### Targeted Intermediaries:

Commercial Off-takers and Input Suppliers.  
Examples include Kibos Sugar (Sugarcane) and OCP (Fertiliser).

### Intermediary Value Proposition:

The intermediary pays CropNuts for the testing campaign. CropNuts currently provides three types of solutions that are better adapted to evolving market needs and directly benefit smallholder farmers. The solutions vary depending on the price sensitivity of potential partners. It varies on agronomical recommendations and how the samples are analysed. The benefit for the intermediary is to improve supply chain through better soil management.

### Farmer Reach and Benefits:

Depending on the type of solution, partners can provide farmers with access to agronomical recommendations; and results of a sample analysis (at a higher price) or clustered/regional recommendations (at a lower price). An alternative solution is to provide licenses to partners to own soil testing kits and leverage their own agronomical capacity to offer recommendations on soil data results to farmers (license fee model).

## ignitia

A climate-technology company specialising in tropical weather forecasting. Unlike global models, Ignitia's proprietary technology delivers hyper-local, high-accuracy forecasts tailored to tropical weather patterns. These insights enable agricultural decision-making regarding planting schedules, fertiliser application, and harvesting windows.

## CASA support:

Ignitia and CASA conducted a pilot in Western Kenya which delivered weather forecast and agronomic advice SMS messages to ~250 farmers. CASA provided support for running a Randomised Control Trial to measure the changes in farmer behaviour relative to a control group.

### Targeted Intermediaries:

Agribusinesses (Off-takers), Input Suppliers, and NGOs.  
Examples include Delish & Nutri (groundnuts and beans aggregator in Western Kenya) and AIC Uganda (insurer working in coffee, maize, and tea value chains in Uganda).

### Intermediary Value Proposition:

The intermediary typically bears the cost of the service, paying approximately \$4 per farmer per year. In return, the agribusiness secures a more reliable supply chain with higher yields. In high-value crops, the uplift in yield required to pay back the \$4 per farmer investment can be <5% (e.g., in cotton).

### Farmer Reach and Benefits:

Forecasts and advisory messages are delivered directly to farmers via SMS. In current B2B2F pilots, the service is provided free of charge to the farmer, fully subsidised by Ignitia and the intermediary. Each partnership aims to reach ~200-1000 farmers. Both Ignitia and intermediaries intend to develop cost-sharing with the farmer or bundling all or part of the fee with input loans.

# Supporting agribusinesses in testing B2B2F models - continued



Following the closure of iProcure, iPOS now operates as a standalone technology business. It offers a Point of Sale (POS) and business intelligence system specifically designed for rural merchants. The software digitises operations for agro-dealers, tracking sales, inventory, and customer data.

## CASA support:

With the support of CASA Kenya, the business has recently launched iPOS Soko, an ordering platform which also offers agrodealers 7-, 14- or 30-day credit to purchase agri-inputs with. iPOS Soko aims to alleviate chronic cash shortages in the agri-input value chain that reduce farmer productivity. CASA provided the first loss facility and funded a consultant to develop the processes and systems required to integrate with a lending partner's facility.

### Targeted

#### Intermediaries:

Rural Agro-dealers (Input Retailers).

#### Intermediary Value Proposition:

The agro-dealer pays for the software license (e.g., a subscription fee or upfront software package fee) for access to iPOS Soko ordering platform and credit, plus digital inventory management, theft reduction, sales tracking, and business intelligence that replaces manual record-keeping. The credit facility allows the agrodealers to purchase stock on credit and provide their customers with better product availability and credit which can help drive additional sales.

#### Farmer Reach and Benefits:

Each agrodealer serves ~50-250 farmers, depending on their location. Farmers benefit from obtaining indirect access to the credit facility (extending the period in which they can pay back the agrodealer) and benefitting from agrodealers that are better stocked with the right products at the right points in the season. Ultimately, it is hoped that farmers benefit by achieving higher yields through improved input usage (i.e., better quality products and more efficient input usage).



An agri-fintech platform facilitating trade in structured value chains. Its "agriGHALA" model integrates secure warehousing, digital finance, and market access to prevent post-harvest losses and enable farmers to sell when prices are favourable.

## CASA support:

CASA funded a Pilot Manager and the tech consultants required to develop the credit facility for the farmers.

### Targeted

#### Intermediaries:

Farmer Cooperatives. These entities help provide the aggregation infrastructure and farmer reach that agriGHALA needs to reach scale.

#### Intermediary Value Proposition:

agriBORA pays rental fees to the cooperative to use their warehouse(s) as aggregation centre(s), and may even invest in upgrading the warehouse(s). The cooperative also benefits from professionalised operations and the ability to offer their members tangible services (loans, storage, market access) without bearing the full financial risk, as agriBORA manages the technology and financing partnerships.

#### Farmer Reach and Benefits:

Farmers deliver produce to the cooperative's warehouse. They pay storage fees and, if they opt for a loan, interest rates (e.g., 1.5% monthly) these costs are deducted from the final sale price. The farmer benefits from access to offtakers through agriBORA and a loan facility that enables them to wait and sell their produce when they choose (rather than "stress selling" at harvest time).



# Common challenges and emerging lessons from B2B2F models



Working with the businesses showcased in this case study, the CASA Kenya team has observed how B2B2F models have the advantage of utilising intermediaries' existing network and relationships allowing them to scale faster and with lower cost of customer acquisition. The B2B2F model also allows for products or services to be bundled by the intermediary, so that it can offer a suite of products or services that can more holistically improve smallholder productivity.

However, CASA Kenya has also seen instances where individual B2B2F products or services lack a compelling value proposition or are not effective on their own, without being bundled together with complementary products or services, or information/training. In these instances, it is critical for B2B2F models to find partners to help address these gaps and ensure their products are delivered to farmers as a bundle through the intermediaries.

Many of the B2B2F models being piloted by CASA Kenya portfolio companies are still in their nascent stages, and there is a great deal more to learn as they scale. Below are some of the recurring challenges we have observed facing businesses operating B2B2F models, followed by a set of emerging lessons we have drawn about when and how B2B2F models are most likely to succeed.

## Common Challenges:

**Weak or unclear value propositions for intermediaries:** In B2B2F models, intermediaries are often the paying customer, at least initially. Yet many services, particularly data- or information-based offerings, deliver benefits indirectly or over time. This makes it difficult for intermediaries operating on thin margins to justify the cost without strong evidence of commercial returns.

**Difficulty translating services into farmer action or benefit:** Even when intermediaries invest in services such as weather forecasts or soil diagnostics, benefits only materialise if farmers change their own behaviour – for example: adjusting planting decisions, applying recommended inputs, or delaying sales – and/or have access to complementary services or information (such as high-quality inputs, technical training). Implementing the bundling and coordinated delivery of product and services requires strong extension systems, aligned incentives, and ongoing engagement, all of which add operational complexity to the intermediary's operations.

**Exposure to market risk:** Several models depend on favourable market conditions (e.g. price appreciation or stable demand). When markets move against expectations, the perceived value of services such as storage, finance, or yield-enhancing inputs can quickly erode.

**Fragmented and loose value chains:** In loosely organised value chains, intermediaries struggle to capture the upside from investments made at farm-level. Without confidence that improved yields or quality will translate into secured supply, intermediaries are less willing to pay for services on behalf of farmers.

## Emerging Lessons:

Drawing from the experiences of the CASA portfolio businesses, certain design principles are emerging. B2B2F models seem more likely to succeed when they:

**Offer a compelling value proposition to intermediaries, not just farmers:** Intermediaries must see clear, near-term benefits such as improved operational efficiency, professionalisation, reduced risk, or new revenue opportunities. Solutions that solve an immediate business pain point are more readily adopted (for example, iPOS addressing inventory management and supplier financing needs). Where the value proposition is less clear, B2B2F businesses should look to build a clear quantitative evidence base through real-world trials (e.g., offering services or products at cost).

**Are embedded in tighter or semi-formal value chains with feedback loops:** Where intermediaries have strong relationships with farmers and clear control over offtake or distribution, they are better positioned to recoup investments made at farm-level. In contrast, services delivered into loose value chains struggle to sustain demand without strong anchoring mechanisms (a challenge evident in some applications of climate and advisory services).

**Bundle multiple elements rather than offering standalone solutions:** Information or diagnostics alone are rarely sufficient. Models that combine knowledge with access to inputs, finance, storage, or markets are better able to convert insights into action and generate value for all parties. agriBORA's integrated warehousing, finance, and market access model illustrates the potential of this bundled approach and iPOS and SunCulture's approach to partnerships also highlights the potential to combine multiple products and services to ensure that farmers can realise the benefits of using superior technology.



Building on TechnoServe's experience implementing the Commercial Agriculture for Smallholders and Agribusinesses (CASA) Technical Assistance (TA) Facility, the CASA Kenya buy-in programme supports emerging agribusinesses as engines of Kenya's economic development. The programme's objective is to drive inclusive and green growth among Kenyan agriSMEs by providing targeted packages of support, combining technical and financial assistance, to help the businesses progress along their growth journey.

The CASA Kenya portfolio includes agriSMEs across different value chains and operating a range of different business models. Some of these businesses are early-stage companies still proving their concepts, while others are more established SMEs seeking to test new models, enter new markets, or reach different customer segments as they move into their next phase of growth. The underlying principle of CASA is to support agriSMEs not only to grow, but to grow inclusively, engaging more effectively with smallholder farmers – either as suppliers or customers.

This case study forms part of CASA Kenya's broader learning agenda, which aims to generate practical, evidence-based insights from portfolio experience to inform investors, policymakers, and of course, other agriSMEs operating in this space.

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