Measuring Sustainability –
The case of Kenya Markets Trust in Kenya

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Synopsis

Development programs aim to create changes that continue to benefit their target population after the project ends. Consequently, as well as assessing results, programs must assess how likely these results are to be sustainable. This case describes how the Kenya Markets Trust measured sustainability of an innovative business model in the agricultural inputs sector.

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This case describes how the program has addressed a typical challenge in results measurement. The aim of the case is to provide insights that will be useful to other practitioners facing a similar challenge. The author does not represent the DCED or SDC, nor do the views expressed in the case necessarily reflect the views of the DCED or SDC.

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[1] The HPC consortium was led by Hans Posthumus (HPC) and consisted of Aly Miehlbradt (MCL), Ben Fowler (MSA), Mihaela Balan, Nabanita Sen (OU), Phitcha Wanitphon and Wafa Hafiz (H&S)

1. Measuring sustainability

Development programs aim to create changes that continue to benefit their target population after the project ends. Consequently, as well as assessing results, programs must assess how likely these results are to be sustainable.

Most market development programs aim to support pro-poor growth by working with partners to implement business model which offer new services, new products or new markets to the poor. Business models will only be sustainable if all parties, including the business and the customer, have an incentive to continue. Obtaining insight into the performance of the business model early on in the intervention is therefore crucial.

This case describes how the Kenya Markets Assistance Programme measured sustainability of an innovative business model in the agricultural inputs sector. It shows how they used the findings to determine the next steps for this intervention, and how it informed the design of other interventions.

2. The Kenya Markets Assistance Programme

Kenya Markets Trust (KMT), together with its institutional partner Adam Smith International (ASI), implements the Kenya Markets Assistance Programme (MAP), a five year program that runs from August 2012 to June 2017. The program is funded by the UK Department for International Development (DFID), the Gatsby Charitable Foundation (GCF) and The Embassy of the Kingdom of the Netherlands (EKN). Its budget is around GBP 21 million. The KMT works with co-facilitators, SNV Kenya, Agri Experience, Technoserve and Mercy Corps, with significant experience in the selected sectors. The KMT aims to increase the incomes and resilience of 150,000 households and create 100,000 jobs.

The KMT works with public and private stakeholders to increase income and jobs by improving the functioning of the market systems on which the target beneficiaries rely. The current MAP portfolio consists of interventions in the water, dairy, agricultural inputs, seeds and livestock sectors.

To learn more about the program, view this power point presentation.

Introducing the agricultural inputs sector

Albert Kimetu, the owner of Alkim inputs retail shop, provides information to farmer Willy Lang.

The rural agricultural inputs sector does not effectively serve poor farmers. Businesses typically aim to maximize their margin per item rather than drive their profitability by increasing turnover and reducing margins per item. As a result, smallholders have limited access to inputs, which are either not available, or too expensive to purchase. Information about the inputs, and how to use them, is also hardly available. Agro-dealers and input-retailers have insufficient inventory management skills, poor product displays, inadequate working capital and little

agronomic knowledge. They do not provide advice to smallholders on how to use inputs.

The KMT aims to facilitate a shift in agro-dealers' business practices to a customer-oriented strategy. If agro-dealers would provide better services to rural farmers, agro-dealers would be able to increase their turnover, and consequently improve their overall profitability.

The KMT intervenes through several interventions, one of which is described below. More information on the agricultural inputs market is available here.

Introducing the input retailers' intervention

The KMT supports agro-dealers to develop new business models. The KMT assists agro-dealers to establish links with other service providers to be able to offer other services, such as spraying. The KMT also supports agro-dealers to improve their marketing, by introducing village promotions, innovative marketing campaigns and testing customer loyalty programs. Agro-dealers are also supported to improve existing and develop new distribution channels, and to improve their business practices by improving inventory management as well as financial management skills. The intervention logic is reflected in the Results Chain.

Magos agrodealer farm technicians in full safety gear providing spraying services to the farmers.

The KMT supports a handful of agro-dealers, but each one of them has a bigger number of input-retailers through which they distribute their inputs and services.

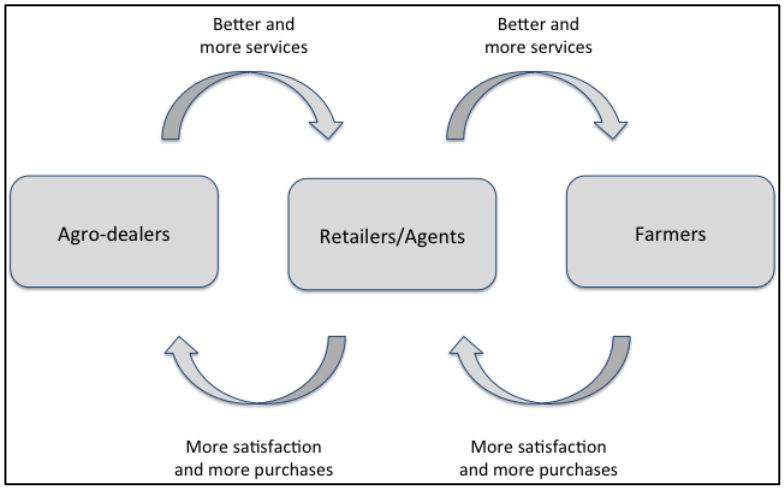


Fig.1 Business model

These improvements enable the agro-dealers to increase their sales and reduce their costs. Their profitability will increase, and they will be able to grow. Their retailers and agents will also benefit from increased customer satisfaction and sales. Farmers will be able to purchase and use more quality inputs and services. That will increase the farmers' productivity and enable them to earn a better income.

3. Defining indicators to measure sustainability

Sustainability indicators focus on the ability, profitability and perception of the business partner and its customers.

Levels of satisfaction of the agro-dealer, its retailers (suppliers) and the farmers (customers) are crucial. If one of them is not satisfied, it threatens the continuation of the business model.

> *"Putting the sustainability of the business model in the center automatically leads to staff being more focused on achieving sustainable results".*
>
> *KMT Manager*

One way to assess satisfaction is to examine turnover and sales. An increase in sales by the agro-dealer/retailer and an increase in the number of farmers that buy inputs and services suggest that both parties are satisfied with the new business model. However, increased turnover does not always ensure that both are satisfied. For example, if the farmer finds that the purchased inputs do not lead to a satisfactory productivity increase, then they will not continue to buy them. Similarly, if the agro-dealer or retailer finds that the new business model does not result in higher profits, then they will not continue to offer these services.

To address this, programs can try to gather information on the profitability for farmers, retailers, and agro-dealers. This information is, however, hard to obtain, as it is commercially sensitive. Moreover, changes in profitability are often hard to attribute to the new business model, as profitability is influenced by many factors. Finally, profitability is not the only consideration. For example, a farmer may not continue to use a profitable product for other reasons, such as an inability to access finance. In order to judge if both parties intend to continue using the introduced business model, one needs to investigate further.

Qualitative assessments allow us to assess whether the business partners are satisfied and likely to continue with the business model. These qualitative assessments may provide insights on likely sustainability before changes are apparent in quantitative indicators such as profitability. In the case of KMT, if agro-dealers are satisfied and state that they will continue, this is a first sign that the business model is sustainable. Their perception is triangulated with the recorded growth in sales and customers, in order to assess whether the business model is likely to be sustainable.

A further indicator of sustainability is that agro-dealers make additional investments to expand the business model to other regions, or other agro-dealers start copying the business model, or elements of it.

The KMT always includes indicators to cover three aspects of the likely sustainability of the business model: the ability, the profitability and the perception of the business partner and its customers. The KMT therefore identified the following indicators to measure sustainability for this intervention. These are included in their measurement plan:

To measure sustainability of the business model on the supply side:

- number of agro-dealers and retailers reporting satisfaction with returns;

- satisfaction of agro-dealers and retailers with customer-focused business model;
- number of agro-dealers investing in expanding customer-focused business model;
- the investments by agro-dealers in expanding the customer-focused sales model.

To measure sustainability of the business model on the demand side:

- number of small-holder farmers purchasing quality inputs;
- number of small-holder farmers purchasing services;
- satisfaction of small-holder farmers with the products and services provided.

In the more detailed research plans for the impact assessments, more indicators were elaborated that help to assess likely sustainability. These included, amongst others, the sales, the sales volumes, the number of clients, sales volumes per client, and the costs and prices of the inputs and services.

4. Measuring sustainability in practice

> *"Measuring sustainability helps to portray clearly the long-term business model. A sound business model helps to motivate other potential partners, which leads to more crowding in, reaching more scale".*
>
> *KMT Manager*

The KMT uses three main mechanisms for monitoring likely sustainability: performance tracker sheets, site visits and dipstick assessments. These monitoring mechanisms provide early information to the KMT on the performance and likely sustainability of the business model and signs of benefits for farmers. Once it is likely that the business model is sustainable and a significant number of farmers has benefited, the KMT conducts a more extensive impact assessment. This section focuses on the KMT's monitoring mechanisms and how they helped the KMT to assess likely sustainability at a relatively early stage of the intervention.

Performance tracker sheets

The KMT's sector analysis revealed that agro-dealers had limited insight into their business performance. The KMT assisted them in improving their financial management skills, and introduced 'performance tracker sheets' that enabled the agro-dealers to keep track of sales and clients. This provided basic management information for the agro-dealers.

It also gave the KMT team the necessary data to assess the results of its interventions, such as the total sales, the sales volumes, the number of customers, the turnover per retailer and others. The performance tracker sheets were collected on a quarterly basis by the KMT intervention team often during site visits.

Site visits

The KMT team visited the agro-dealers and their retailers frequently. These visits created opportunities to observe changes and to have in-depth discussions about the progress and sustainability of the business model.

Mrs. Salome Wambui, an agronomist, assists a customer after remodeling the shop at a retailer of Farmshop.

The KMT team looked at the storage of agricultural inputs to see if inventory management was improving. They observed interactions with customers to see if information on how to use inputs was being provided and if customers appeared interested in and satisfied with the information provided.

The KMT also discussed progress with the agro-dealers. These discussions covered topics related to sustainability, such as the agro-dealers' satisfaction with various aspects of the business model, their plans for expanding the business model and any recent customer feedback they had received.

This assisted the KMT intervention manager to understand the likelihood of success of the new business model, or lack of it. During the quarterly review meetings, where the KMT management team reviewed its interventions and sectors, the intervention manager presented the findings. These data provided an important input for the KMT management to discuss and assess if the intervention needed to be adjusted, if the business model appeared sustainable, and if the projected impact was likely to be achieved.

Dipstick assessments

The KMT assesses early signs of impact through 'dipstick-assessments'. The term 'dipstick' was used to differentiate these rapid assessment reports from the more extensive impact assessments that are conducted later in order to gauge larger-scale results and report results credibly to the donors. These used mixed methods, integrating both qualitative and quantitative data.

Dipstick assessments typically utilize a purposive sampling technique, whereby the researchers deliberately select a sample in order to maximize learning, rather than selecting them randomly. Sample sizes are usually smaller than in later impact assessments. Dipstick assessments are designed to assess what changes have occurred, and how the KMT can learn from them. This helps the KMT to make management decisions, to adjust the intervention, to scale up the intervention, or to develop other interventions.

One year after the start of the intervention, the KMT undertook their first dipstick assessment using the following methods.

- **A survey with selected agro-dealer customers (i.e. farmers) to capture quantitative data.** The KMT worked with five agro-dealers, yet two of them had started to apply the business models much later. KMT therefore opted to sample farmers from the three agro-dealers that had been applying the business model for some time. These agro-dealers were operational in three different regions. The KMT sampled 30 respondents from the clients' list of each agro-dealer and interviewed 90 respondents in total. Only farmers that had actually made use of the new products and services were included in the sample.

- **Focus Group Discussions (FGD) with the clients of the supported agro-dealers (i.e. farmers).** This helped the KMT to understand the reasons for those reported changes, or the lack of it. The KMT selected a limited number of farmers from the 30 farmers already interviewed from each agro-dealer, and in total organized three FGDs.

- **In-depth interviews with the three agro-dealers and retailers.** These interviewed explored changes in the business practices of the agro-dealer, including management, marketing and promotional practices. Interviews were held with the owners and the management of the agro-dealers, and their retailers or agents.

The dipstick assessment is summarized in this PowerPoint presentation.

Findings

The performance tracker sheets, site visits and the dipstick assessment enabled the KMT to assess the likely sustainability of the business model at an early stage.

The dipstick survey showed an increase in purchases as well as an increase in information on how to use the inputs.

Performance against indicators on increased purchase and use of inputs and services[2]

Selected indicators	Question area	Findings
Change in farming practice **Increased purchase of inputs** **Purchase of new services and products**	3.1 improved crop husbandry; What, if anything, are farmers doing differently in the production of the crops? Why? 3.2 farmers claiming to purchase inputs from KMT supported agro-dealers? What are the inputs? 3.3 Whether purchased inputs from KMT supported agro-dealers in recent planting season? What they did with the inputs and the result? 3.4 farmers claiming to have purchased new product or service from agro-dealers in last planting season? How they become aware of the new products/service?	Approximately 23% increase in purchase of fertilizer and 23% increase in seed purchase. *Over 90% of the farmers claim to purchase inputs from agro-dealer supported by KMT. This is a 20% increase from previous season. The 20% are farmers who were either buying from other agro-dealers or not buying at all.* The new service that farmers had not used before with the highest mentions was soil testing. 75% are aware of soil testing services being offered by agro-dealers *80% cite promotions and field days by KMT-supported agro-dealer as the source of information about new services and products*.

Focus group discussions revealed that many farmers believe that investment in the right inputs is required for them to increase productivity and quality of the produce. They also stated that the agro-dealer and their retailers had provided a lot of advice, but that the costs of these inputs was a significant barrier to purchasing them. There was, however, a willingness to pay more for inputs because of the higher returns produced.

Most farmers are very likely to remain loyal to the agro-dealers and their retailers based on their confidence in the quality and effectiveness of inputs and services provided by them. The customer-oriented approach adopted by the agro-dealers has thus increased the farmers' confidence in the agro-dealers.

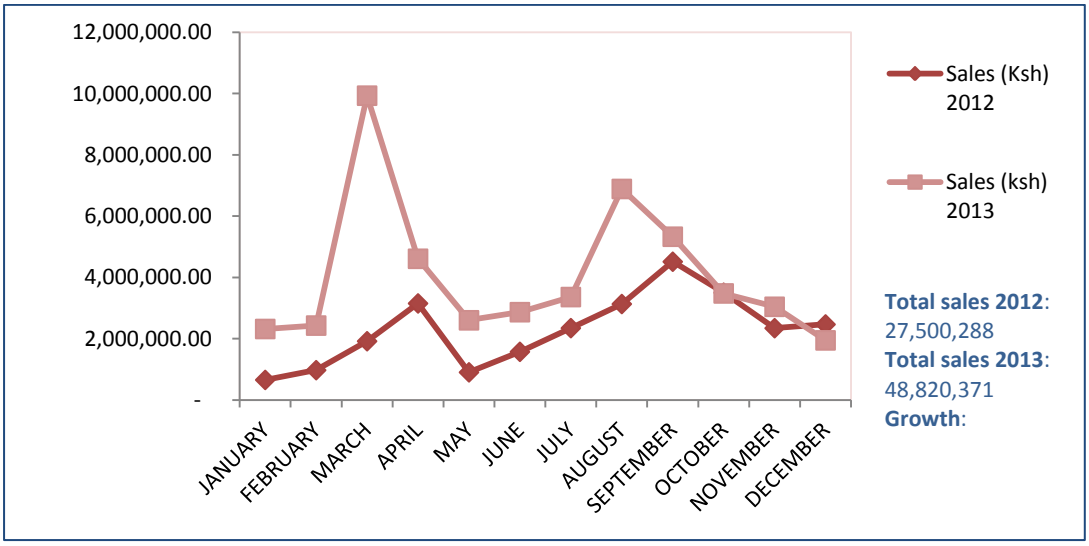
[2] Source: Inputs dipstick assessment report 2014

Performance against indicator on customer satisfaction[3]

Selected indicators	Question area	Findings
Customer satisfaction,	4.1 Farmers confidence that the inputs/services purchased are the right ones.	*45% 'strongly agree' they are 'confident that they are buying the correct input and services supply' when they buy from agro-dealer.*
Utilization of services,	4.2 How confident farmers feel about the fact that they know how to use the inputs properly. 4.3 How satisfied farmers are with extension services offered by the KMT supported agro- dealers?	*44% 'strongly agree' that on overall they are 'satisfied with the service' provided by agro-dealer*

The performance tracker sheets gave insights into the performance of the agro-dealers, such as the ability to compare sales between two seasons. This helped the KMT to analyze and discuss changes with the agro-dealers.

Agro dealer performance 2012-2013. [4]



In-depth interviews with agro-dealers and their retailers provided valuable insights.

- The agro-dealers and their retailers have increased sales, which was likely due to the changed practices.
- The inventory system has helped them to minimize stock–outs since they are able to better manage stock levels, as well as forecast and budget more accurately.
- All the three agro-dealers have adopted ICT-based customer management systems. They use this platform to register their customers and track repeat sales. This has helped them to understand their customers' needs and to offer personalized customer services. The agro-dealers state that this has increased their customer base.

[3] Source: Inputs dipstick assessment report 2014

[4] Graph is made anonymous to respect confidentiality

- Shop re-modeling has increased trust among the farmers. F armers can spend time to read about the products, see the expiry date and be assured they have bought the right input. This, according to the agro-dealers, has increased the number of customers.
- Promotions have directly been linked to increase in sales due to increased customer out-reach. One agro-dealer reports an increase in customers as a result of promotions. Another agro-dealer claims to have increased sales as a result of promotions and other marketing activities.
- Building agent networks was a new concept to the agro-dealers, but there has been positive progress. One agro-dealer claims to have seen an increase in its customer base as a result of engaging agents. [5]

Victoria Mweni Muteti and Jackline Mwende Mwania harvest sorghum after applying proper farm inputs.

Read the story of Margaret Atieno, a beneficiary farmer, and how the KMT intervention has helped her or watch the video.

5. Benefits of measuring sustainability

The findings enabled the KMT to assess the sustainability of the business model, to make adjustments, and to develop new interventions which would scale up the business model.

> *"Without measuring sustainability, it is impossible to predict anything on long-term impact levels".*
> *KMT Manager*

Farmers were satisfied with the improved input and service provision, and appear to become repeat customers. The agro-dealers and their retailers perceived the new business model as advantageous to them. The KMT was able to link increased productivity to the increased availability of inputs and additional information on how to use them.

The business model appears to be sustainable. Sustainability indicators focus on the ability, profitability and perception of the business partner and its customers. The KMT confirmed that the agro-dealers, their retailers and the farmers are able to operate the new business model, to benefit from it and to perceive these benefits.

The KMT also learned that the costs of the inputs have not (yet) decreased, and that not all services were used. The KMT needs to investigate the causes, and to determine how to address them. The KMT also needs to re-think how to ensure that farmers can purchase inputs at affordable prices, for example by developing new finance products and services.

There have been signs that agro-dealers adapt elements of the business models without support by the KMT, such as organizing more and different forms of village promotions. Agro-dealers have not yet invested in expanding the business model to other areas. This will need to be monitored by the KMT in the coming years.

[5] Names and numbers are not presented to respect confidentiality

If the focus had not been on the sustainability of the business model, the KMT would not have obtained such an in-depth understanding. The increase in sales was considerable, but in itself this did not confirm the sustainability; the perception of the business partners was critical as well. The same applies to the increased purchases by the farmers: their satisfaction and potential loyalty is equally essential.

The KMT team concluded that, as the introduced business model is likely to be sustainable, they should look for opportunities to increase outreach. Using the current results of the business model, the KMT investigated opportunities to scale up by persuading other agro-dealers to invest in customer-focused business models. It was only able to do so by demonstrating the sustainability of the introduced business model. The KMT also used information on the increase of sales and customer satisfaction to show ICT, training and marketing firms the business potential for providing services to the agro-dealers.

A satisfied farmer exits Farmshop.

Listen to Khaled Khan and Susan Maina from the KMT team who discuss the benefits of measuring sustainability.

6. Annexes

1 KMT presentation DCED Seminar 2014
2 Inputs sector
3 Results chain
4 Measurement plan
5 Performance tracker sheets
6 PowerPoint presentation of dipstick survey
7 Farmer's impact story
8 Sustainability Audio Clip