Market development activities – Supporting a solar retailer to test the market in a displacement setting
August 2018

In 2017, the Moving Energy Initiative (MEI) provided support to BBOXX Capital (Kenya) Limited with the aim of increasing the distribution of high-quality solar products in and around the Kakuma refugee camp in Kenya. Part of the MEI’s market development activities, this support involved providing BBOXX with seed funding of just over £30,000 in order to ‘de-risk’ BBOXX’s investment in establishing a retail outlet for its products, and in testing the market for its pay-as-you-go solar home systems (PAYG SHS). The grant covered the acquisition of an initial 75 units, rent and staff costs for an initial six-month period, associated training costs, and co-funded marketing materials for the company. In addition, the MEI supported BBOXX with marketing activities by conducting roadshows in the area to raise consumer awareness of the products and by running adverts on the local radio station.
BBOXX launched its retail shop in Kakuma town in February 2018. The initial 75 systems sold out within four months, with 66 such units being purchased by refugee camp residents. Demand for the systems was in fact higher, but logistical issues prevented BBOXX from meeting demand immediately. New stock, financed by the company, arrived in July 2018. Out of the 40 units sent, all have since been purchased.

Customers are required to pay a KES 1,780 (US$17.5) deposit for the system, and then a monthly fee of KES 900 until the balance has been paid in full (on an approximately three-year repayment schedule). Following repayment, the customer pays KES 450 a month to continue receiving a full-service support package for the system. The company will switch any faulty or defective units immediately to ensure continuous access to power. If the customer does not pay his or her monthly fee, the power is switched off remotely until payment is made. If the customer does not pay anything for 45 days, the system is taken back by the company. BBOXX has not yet experienced any defaults on the monthly payments in Kakuma, although two systems have been returned due to customers (from the refugee camp) relocating.

Initially, BBOXX considered the Kakuma shop as a pilot scheme outside the scope of its main operations, and thus provided only the basic system. However, it soon became apparent that the company should be treating the shop as any other outlet and building it into its wider retail network. BBOXX has now started to send a greater variety of products, including radios, to the shop. From its experience in the six-month trial, BBOXX believes that a market for its products exists, and plans to continue selling in the area. The company also plans to expand its market in Turkana County, beyond Kakuma.

The company has, however, faced several challenges in setting up its operations. In particular, the cost of transporting its products to Kakuma (approximately 570 km away from BBOXX’s main distribution outlet in Kisumu) is significantly higher than for its other retail locations. As the company offers the product at the same price nationwide, this means that revenue is reduced. In Kakuma, BBOXX’s average revenue per customer per month is US$6–7, whereas at its other retail locations the company receives an average revenue of US$9–10 per customer. Staff costs are also higher in Kakuma than at BBOXX’s other retail locations – this is potentially due to the substantial presence of NGOs and humanitarian organizations in the area, which raises the market rates for labour.
These costs mean that overheads at the Kakuma outlet are higher than at other BBOXX locations. As a result, the Kakuma shop will need a larger customer base to break even: the minimum is approximately 750 customers (allowing for a 30 per cent default/late payment rate), compared with approximately 350 customers to break even at the company’s other locations. BBOXX believes that, with additional marketing, it would need seven to eight months to secure this customer base. However, with the initial grant period from the MEI closed, it will be up to BBOXX to cover the deficit itself until it can break even. The seed funding allowed BBOXX to see that a market does exist in Kakuma, and the company wants to maintain its presence there. However, running a financial deficit at the shop over eight months (until breakeven point is achieved) could present a burden across the rest of the company’s network. As such, the commercial viability of having satellite shops in locations such as Kakuma needs to be carefully judged against the option of opening outlets in other locations where higher revenue could be achieved. For BBOXX, some form of bridging finance (either additional grant funding or a working capital loan) would help to ease this burden and allow it to scale up its operations. This could make the company more inclined to include locations such as Kakuma in its sales operations in the future.

Before my initial visit to the camp, I was concerned about engaging in the market because of insecurity, lack of ability to pay for our products and language barriers. In reality, I was impressed with the vibrant economic activity in the camp, including some of our competitors!

BBOXX Capital (Kenya) Limited
What we did...
Provide grant finance to BBOXX, a solar PAYG provider, to enable it to establish a shop to serve Kakuma camp and the surrounding communities.

Why?
To enhance access to reliable, affordable energy for lighting and charging, and respond to comments from camp occupants and businesses that they are willing to pay for it; such energy. Simply put – to test the market.

Kakuma 1 camp (households surveys show)¹

- Residents spend almost $50 per annum on inadequate lighting and power (14% of their median income)
- 22% of camp occupants have no way of lighting their home after dark
- 86% of camp occupants rank in Tier 0 or Tier 1 for cooking and lighting access
- 12% of the population pay at least $5 per month to access energy from diesel generators
- 37% of camp occupants reported energy for households as their number 1 priority for improving energy access, at Tier 2 or above
- 17% said they would pay for a solar home system at $126, indicating a solar product market of up to $300k

Kakuma 1 camp (business surveys show)²

- 25% of surveyed businesses are owned by women
- 61% of businesses use some form of lighting, and over 90% would like better lighting
- There is high demand from businesses for power for ICT, motive power, heating and cooling
- Availability of business finance can be a barrier to increasing energy access
- High delivery costs to the camp can constrain businesses in their operations
What we found

115 BBOXX solar home systems sold

45 tons of CO₂ displaced per active year

92% of units were sold to camp occupants for business use

90% of units were sold to camp occupants for business use

10% of units sold into host community for residential use

25% of units were sold to women

33 km the furthest distance a customer travelled to purchase a SHS system

0% the number of defaulters in the first 2 months (3% is the average for Kenya in the same period)

4 number of full-time employees from the host community

9 number of commission-only employees from the camp community

10x more cost than originally planned for transportation overheads

750 customers needed to cover operational overheads each month

What does this mean

- Previous assessments of the potential for the market proved correct.
- Refugees are keen to access energy for businesses.
- There is more of a market in the refugee community than in host community.
- Grant assistance is likely to be required to absorb initial operation costs before breakeven is reached.
- Higher costs for transportation and staff mean that a larger customer base is required to support the shop costs.

Although the shop has not been open for long, early signs suggest that the refugee market is viable. Sales are not considered by the retailer to have peaked, and more marketing is still planned. As such, data from market assessment activities indicating refugees’ willingness to pay have proved correct.

---

1. 223 households surveyed (all surveys in Kakuma 1 in Dec 2016)
2. 78 businesses surveyed
3. Data as of August 2018