

BRIEFING NOTE SERIES: TOWARDS A THRIVING ECOOK MARKET IN TANZANIA

2/7: Who's Who in the Market Chain for eCooking in Tanzania



This briefing note describes the main actors in the market chain for energy efficient electric cooking (eCooking) devices in Tanzania, and their motivations, capacity gaps, and barriers to involvement in the Electric Pressure Cooker (EPC) market chain. The market chain consists of the actors who make it possible for end users to access eCooking appliances and use them long-term. The roles of actors span various functions, such as manufacturing, importing, retail and distribution, repair and maintenance. The market chain for EPCs is in the early stages due to low awareness and EPC demand, and what follows is a description of actors who are significant in the eCooking device market chain but who are not yet bulk importing and distributing EPCs, as well as those who are more active in the EPC market chain. Here we introduce the motivations and perspectives of the market chain actors, which contributes to an understanding of the market system and how a thriving market can be encouraged. We then describe how the Thriving Market project responded to these issues.

WHO'S WHO IN THE MARKET CHAIN?

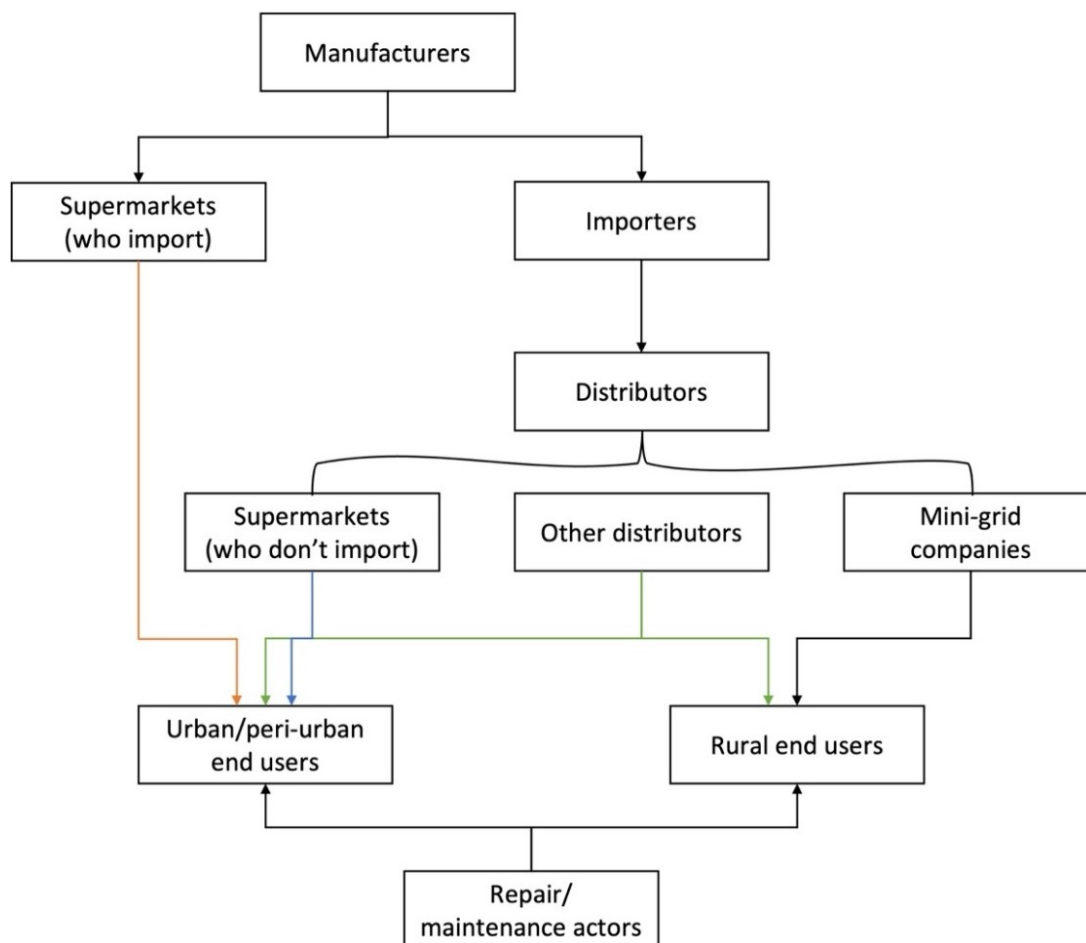


Figure 1: Market chain actors in the eCooking market chain

After brief descriptions, the market chain actors are explored under the following headings:

- Motivations
- Barriers to involvement in the EPC market chain
- How these actors can contribute to increased uptake and sustained use.

Manufacturers

Description:

All EPCs marketed in Tanzania are manufactured in different countries (most commonly from China, but also Japan and South Africa) and are imported into Tanzania – none are currently made or assembled in Tanzania.

Motivations:

- Sales revenue
- Reaching new markets with existing products
- Offering new products to existing markets

Once a relationship between importer and manufacturer is established, manufacturers can be active in suggesting new products, sending samples to trusted importers to test to incentivise the importer to import larger quantities themselves. They can also be instrumental in modifying appliances to fit the local

requirements which is extremely important for new products such as EPCs. Both these situations have occurred between SESCOM and their manufacturer, who has sent samples of air fryers as suggestions for new complementary products to import and distribute alongside EPCs, and who is involved in modifying the EPCs they manufacture in response to local requirements.

Barriers to involvement in the EPC market chain:

- Lack of awareness of the potential of, for example, the Tanzanian market.
- As they are not familiar with the local context they require reliable local actors to inform them on how to modify appliances to fit the market.
- Lack of familiarity with the local context and experience in-country means large brands or manufacturers do not have their services and processes (for example, warranties and repair) set up, and doing so is a daunting proposition.

The willingness to adjust existing products, and their proactiveness in suggesting new products that might also fit the market, means a good importer-manufacturer relationship can be really beneficial to the goal of EPC and other eCooking appliance distribution.

Importers

Description:

Importers bring EPCs into Tanzania from other countries and sell on either to end users or other distributors. Some of the imported EPCs are of low quality – see Briefing Note 5 for more information on the issue of quality and the need for quality standards.

The five main importers of EPCs are:

- Sustainable Energy Services Company (SESCOM)

- Nida-Danish Company
- Zoom Tanzania
- Said Mohamed
- Jiji Tanzania

Other major importers of eCooking devices (that do not currently seem to be importing EPCs) are:

- Kikuu Tanzania,
- Soko Bora,
- Jumia Tanzania and
- Bei Chee.

Motivations:

During the project, existing importers of eCooking devices (but not EPCs) were engaged with to raise their awareness about EPCs and encourage them to include them in the product catalogues they bring in. Existing importers perspectives were explored. They mostly had 2 primary motivations for their actions:

- Profit
- Moving stock quickly

These were primary to such an extent that they had little interest in hearing about details of new products (in this case EPCs) or attending training to find out more about them. They were not concerned about the quality of the products they were bringing in or motivated by the positive benefits using EPCs can have for end users in terms of quality of life, health, and saving time. They were only interested in sales potential and were risk averse to anything that they weren't sure would sell well. They gave impression that for them to start bringing in EPCs, they would be led entirely by demand, and had little interest in contributing to stimulating that demand themselves, for example by increasing their own knowledge and then passing it on to customers.

Barriers to involvement in EPC market chain:

- Not motivated to understand new products and their potential
- Limited investment and working capital
 - and lack of understanding or adoption of results-based financing mechanisms or carbon credit opportunities that are becoming available, in order to unlock that capital
- High taxes on the EPCs

- Customers have low awareness and so are not demonstrating clear demand which the importers need to see to act
- Lack of adopting innovative financing mechanisms such as PAYG, to address affordability, and thus increase their sales
- Inadequate capacity to undertake business development at scale with a new product

- Heavily influenced by the importers as to what they sell – they sell whatever is brought in.
- They want to sell the top popular products, rather than risk trying something new.

Barriers to involvement in EPC market chain:

- Lack of EPCs available due to them not being imported in bulk.
- Lack of awareness and understanding about EPCs.
- Like importers, distributors usually distribute many appliances, and so aren't interesting in putting the resources behind the marketing for one appliance (the EPC) which would be required for customer awareness raising.
- Smaller distributors can be unreliable in terms of how much stock they take and whether they are a reliable off-taker of stock – they can be interested for a short time and then change their minds. This means that there is not much security for larger distributors or importers in supplying them.

Clearly, given how nascent the EPC market is, the profit-driven motivation is a challenge in getting importers (and distributors) involved and so achieving increased uptake. The demand-led nature means careful messaging needs to occur to convince these actors, and in parallel (or even first), awareness-raising activities that increase demand must be undertaken.

Distributors ('other distributors' on the diagram)

Description:

This group is defined as those who buy the devices from importers or other suppliers in Tanzania and sell on either to end users or other retailers, usually in shops in urban centres or small shops in markets. The distributors may sell directly to end users themselves or there may be an additional actor between them and the end users, such as local retailers who have direct access to more remote market segments.

Motivations:

- A very similar situation as that found with importers – motivated by profit and thus moving stock fast, and with little interest in knowing about new opportunities if the demand requires stimulation.

Distributors buy appliances and sell to their customers with the aim of making profit and they sell a range of products. Therefore, they do not want to invest resources in providing support services such as promoting EPCs, repair, capacity building, etc. Those support services need to be provided by manufacturers/brand owners, or other actors such as NGOs, government, or multi-lateral, in order to stimulate the market to the extent that existing distributors of electric appliances see the rationale to get involved

Supermarkets

Description:

Most supermarkets buy EPCs from importers after importation, though some import appliances themselves. They typically sell at a higher price than other distributors, mostly to medium and high-income customers. They prefer to buy from other importers rather than import themselves because it is simpler. For an importer to sell to supermarkets requires complete documentation of the product and its importation. In some cases, a distributor is given a space at the supermarket to display the EPCs on agreed terms.

Motivations:

- Profit and moving stock fast
- Retaining customers
- Offering attractive and aspirational products, as it is more the middle-high socio-economic segments that shop at supermarkets. Given EPCs are an aspirational way to cook, communicating this clearly is likely to be the best way to get supermarkets interested.

Barriers to involvement in EPC market chain:

- The same as for distributors

A challenge with supermarkets is the high mark-up they apply to their products due to their clientele. They are not targeting lower-income segments of society. However, they are the sort of entities that are more likely to offer warranties, or manufacturers could offer warranties through, which is advantageous for sustained use.

Mini-grid Companies

Description:

A mini-grid generates and distributes electricity to a localised area. There are many companies operating mini-grids in Tanzania such as PowerGen Renewable Energy, SESCOM, Husk Power, RESCO, Engie Power Corner, REX, ENSOL, etc. The companies are operating from urban areas but their projects are in the rural areas. Their interest in electric appliance distribution is to increase electricity demand and thus sales revenue. Through collaborating with PowerGen and A2EI on various mini-grid projects in Londoni, Saranga, Chang'ombe, Kitaita and Songambebe, it has been shown that EPCs can be an attractive option for mini-grid users.

Although not displayed on the diagram, national utilities (in this case TANESCO) could also be part of the system by vending EPCs to their customers. See Briefing Note 6 for more information about the opportunities for TANESCO that would incentivize their participation in the EPC market chain.

Motivations:

- To stimulate demand and sell more electricity.
- To understand how distributing EPCs to mini-grid customers affects their electricity demand and the technical functioning of the grid itself.

Barriers to involvement in EPC market chain:

Most of their customers are in rural areas with low ability and willingness to pay due to their socio-economic circumstance. There is a lack of appropriate financing mechanisms and limited awareness. However, the affordability barrier can be mitigated by offering EPCs on credit, or by innovative finance mechanisms such as PAYGO eCooking.

Mini-grid operators are important actors for disseminating EPCs to rural customers and making the devices affordable through asset financing schemes. It is a win-win situation for the operator and customer as it increases electricity sales and reduces household cooking budgets – see (Inston and Scott 2022) for more on affordability of cooking on mini-grids. The mini-grid operators can promote and do their own marketing of EPCs to their customers and are also well-placed to offer after-sales services through their local operating staff.

Repair and maintenance providers

Description:

For the most part, local technicians (called ‘fundis’) are very common in urban and peri-urban centres of Tanzania (even in rural areas, though with less diversity in activity and appliances they can fix – tailored to the demand for particular services there), and some specialise in household or cooking appliances. They usually are not operating as agents of the manufacturer and so do not fulfil manufacturer warranties. When they can’t fix something, they break it down and keep useful parts for future repairs.

Motivations:

- Fixing whatever it is clients have – demand led.

Barriers to involvement in EPC market chain:

- Lack of knowledge and understanding of EPCs from the technical perspective.
- Very few EPCs in circulation so currently no need to train and acquire that knowledge.

Fundis will be very willing to learn how to fix EPCs once they become common. In order to do this, they will need training or guidance on how EPCs work and the common issues, as well as access to spare parts.

End Users

Description:

End users are the actual cooks in households or institutions and may also be those who decide how cooking is done but who don't actually do the cooking themselves. For more information on household cooking practices see the cooking diaries reports associated with this Briefing Note Series (see Briefing Note 1). For more detail on opportunities for eCooking at an institutional level, see (Aloyce and Ngaya 2021) and (Bisaga and Campbell 2022). End users are of course actually made up of multiple groups according to where they live (rural/urban), socio-economic factors, access to electricity and other infrastructure. For more on end user segments see (Shuma et al. 2022).

Motivations:

- Saving time and money
- Convenience

Barriers to involvement in EPC market chain:

- Lack of awareness of EPCs
- Misconceptions that it is too expensive to cook using electricity
- Upfront cost of the appliance
- Limited access to EPCs

Once end users are informed about the benefits of EPCs, and particularly once they have tried them, they have very positive feedback about them. However, innovative financing mechanisms are required to make the products accessible and overcome the upfront cost barrier – this, coupled with lack of awareness, is the major barrier to demand growth in Tanzania.

CHALLENGES IN THE MARKET CHAIN

The EPC market chain has few participants now in Tanzania, though there are a lot of potential participants if actors dealing in other eCooking appliances choose to diversify and participate. The common issue across all actors is low awareness of EPCs. While some actors such as end users are often open to hearing about EPCs, others such as importers and distributors who deal in other electric appliances are unwilling to learn about a new product unless they see a clear demand – which is low due to low end user awareness. They are not interested in getting involved on the basis that there is a huge potential for demand – it is easier and less risky to continue their current practices. A major challenge for the market system is that these potential actors do not want to invest in the support services required to kick-start the EPC market – awareness raising campaigns, after-sales services – even though the market expansion would benefit them in the long run. It's a classic chicken and egg situation – demand needs to be stimulated, and EPCs being available and the supply chain having support services would do this, but actors don't want to do this until end users are demanding the product.

A lack of access to working capital is also a barrier to actors getting involved in the EPC market chain at scale. Due to these limitations, before the Thriving Market project commenced, there were just a few actors who were importing sub-standard EPCs on an ad-hoc basis. Without stimuli and interventions, the current situation may not lead to a sustainable growth in the EPC market.

RESPONDING TO THESE CHALLENGES

In response to the challenges identified in the market chain, and the barriers that mean existing market actors are not motivated to take action both by deliberately dealing EPCs at all or in higher numbers, the Thriving Market project was an opportunity for targeted intervention. Together with SESCOM, TaTEDO designed and put in place support for new market chain actors to be introduced and to flourish, in order to move towards increased uptake and sustained use of EPCs.

Firstly, SESCOM began to investigate becoming an importer of EPCs itself, and it began to import a SESCOM-branded EPC. SESCOM is a social enterprise with different motivations to other market actors:

- Positive change in end users lives
- Equality of access and reaching those who are disadvantaged
- A sustainable business model that enables sustained end use

SESCOM aim to meet the growing EPC demand in the country by facilitating availability and affordability of EPCs for their distributors and customers.

The EPC model imported and promoted by SESCOM is of high quality, as proved by the tests undertaken during the 2020 Global LEAP Award on EPC Competition in which it won the first award in the Medium AC Power Category (Global LEAP 2021). For more discussion on the issue of quality appliances, see Briefing Note 5.

Secondly, TaTEDO and SESCOM also set up three Sustainable Energy Service Support Centres across Tanzania and trained technicians who would be available at these support centres in order to service and repair EPCs, guided by a technical manual developed over the project. In addition, a sales agent model was implemented, whereby individuals of women's groups were trained to be distributors in their local communities, with the proximity to end users enabling them to perform the important support functions of training and after-sales assistance. They are contracted to supply SESCOM EPCs at a controlled price, avoiding high mark-ups that can be applied by other actors. There are 46 sales agents currently across Tanzania. To read more on the Sustainable Energy Service Support Centres, sales agents, and after-sales support services, see the next briefing note, Briefing Note 3.

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