Marketing Challenges and Strategies for Micro & Small Energy Enterprises in East Africa

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1. **INTRODUCTION**

Marketing of a product or service is a central activity for a successful business; it is concerned with identifying, anticipating and meeting the needs of customers in such a way as to make a profit for the business. Without a market no business would exist.

This report summarises findings from a study undertaken by GVEP International (Global Village Energy Partnership) under its Developing Energy Enterprise Project East Africa (DEEP EA) to review current marketing strategies being employed by energy micro and small enterprises (MSEs) and the marketing challenges they face. The gap in marketing is present in many enterprises that are being supported by the DEEP EA project. This study looked in more depth at how marketing theories are being applied on the ground for specific DEEP EA supported technologies and how DEEP EA staff is offering marketing support to entrepreneurs engaged in their project. Case studies of marketing techniques being applied by energy MSEs and their effectiveness are highlighted throughout this report. Based on this study, recommendations are made on how entrepreneurs can improve their marketing activities.

The fieldwork for this study was conducted throughout Kenya, Uganda and Tanzania during the period February 2011 – April 2011 and concentrates on entrepreneurs involved in improved cook stoves (ICS), briquette making, solar phone charging and solar installation.

1.1. **GVEP International**

GVEP International is an international non-profit organisation seeking to reduce poverty through accelerated access to modern energy services. Using business led solutions, the dedicated team of energy and finance professionals operates through regional hubs in Africa and in Latin America, and is supported by a small UK head office. GVEP International supports and nurtures micro, small and medium enterprises in the energy economy, and helps connect them with funders and investors, in addition to working with public sector bodies to try to create an environment which is supportive of energy SMEs. Through the website, a wide network of businesses, investors, government agencies, NGOs, donors and researchers are connected.

1.2. **Developing Energy Enterprise Project - East Africa**

The Developing Energy Enterprises Project East Africa (DEEP EA) is a five year initiative established in 2008 to provide the crucial support necessary to enable the development of a sustainable and widespread industry of micro and small energy enterprises in Kenya, Uganda and Tanzania. The implementers of DEEP East Africa recognise the constraints and challenges faced by the energy entrepreneurs, especially the lack of business and technical capacity and inadequate access to finance.
DEEP EA supports the development of energy enterprises formed by, and for, rural and peri-urban entrepreneurs by assisting them with the identification of viable energy market opportunities, technology options, and service structures to generate revenue and sustain business. DEEP EA will also assist entrepreneurs through training and mentoring to develop business plans and access the necessary financing, thereby enabling businesses to survive and grow sustainably.

GVEP International is the lead co-ordinator of the DEEP EA programme working in close collaboration with the following partner organisations; Coastal Rural Support Project Kenya (CRSPK), IT Power East Africa, Practical Action East Africa, East African Energy Technology Development Network (EAETDN). Further information about DEEP EA can be found in Annex 1.
2. **BACKGROUND TO STUDY**

The gap of marketing a product or service is present in almost all enterprises that are being supported by the DEEP EA project. Without a dedicated effort in supporting the energy entrepreneurs to proactively reach out to the market it will be very difficult to enable them to break-even or grow. During a project strategy review in March 2010 (quarter 8 of the implementation), ‘enterprise market development support’ was added to the support activities offered to entrepreneurs, to intervene in the area of energy product marketing. During the market development support sessions held between energy entrepreneurs and DEEP EA’s mobilization partners, several marketing challenges were identified. Based on this a need was acknowledged to research further the current marketing strategies employed by energy entrepreneurs and the challenges that they face to help DEEP EA better understand the marketing issues and dynamics on the ground and as a result better improve the marketing support and advice they offer to entrepreneurs.

2.1. **Introduction to Market Development Support**

DEEP EA implementation staff felt that entrepreneurs should be offered support to help them overcome their marketing deficit and engage in effective marketing. Key areas of market development that entrepreneurs were lacking included identifying new market niches, expanding market reach, increasing market share and developing more innovative marketing strategies.

The activity is carried out by the mobilization partners in each region - namely Practical Action in Central and Western Kenya, Coastal Rural Support Project, Kenya in Coastal Region Kenya and East African Energy Technology Development Network (EAETDN) in Uganda and Tanzania. During business and energy technology training, a basic market need assessment for each of the entrepreneurs is conducted. Using this information the project team can identify areas where further marketing support is needed. Market development support looks at all aspects of running a business and can be any activity that is supporting the business and helping it to grow from a marketing perspective. It can be conducted one on one or in a group environment and covers aspects such as market linkage, promotional techniques and opportunities for advertising. The market development support process is described in Annex 2.

2.2. **Marketing challenges identified in market development support**

During market development support sessions the following issues were identified as key business and marketing challenges faced by energy entrepreneurs in the DEEP EA programme.

- **Lack of promotion**

Entrepreneurs do not carry out active promotion of their products or services. They rely on passing trade and customers finding their businesses by chance which results in minimal and local sales.
• Business Premises

The entrepreneur may not have an identifiable business premise in which to display and sell their products. Many may sell their products in someone else’s shop or from their home. Business location is also important to maximise on passing trade. If the business is located far from the market the entrepreneur may rely on customers coming to them or will have increased transportation costs to get their products to market.

The entrepreneur may also have limited space available to them for both the production and storage of their products, which will limit the amount they can produce. For example, this can be a particular problem for entrepreneurs producing ICS liners where space is required to dry the liners, particularly during the rainy season.

To expand their business and market reach an entrepreneur may want to set up an outlet in another trading centre. This can pose many challenges such as capital to set up a stall, transportation of goods and man power to operate a further outlet.

• Finding New Markets

An entrepreneur may rely heavily on local customers and has a need to form links with markets in other towns to expand their customer base. They may also want to be linked up to distributors and stockists but lack the knowledge and contacts to make these links.

• Product Range

The entrepreneur may rely on selling one specialist product which limits the amount of sales they will make each month. They may benefit from expanding their product range particularly into complimentary products.

• Transportation

If an entrepreneur’s business is located far from the market centre, the cost and logistics of transportation may be an issue particularly in areas with poor quality roads.

• Competition

The entrepreneur may face a lot of competition from similar businesses in the area. This is a particular issue in the briquetting business where competition exists from more established options such as charcoal as well as other briquette suppliers. There may also be strong competition for raw material such as charcoal dust when a limited supply is available in the local area. This may lead to an increase in the price of raw materials.

• Product Awareness

Potential customers may lack awareness and understanding of the benefits and uses of the product. This is a particular problem with energy products that are new to the market such as solar products and briquettes.
• Capital

An entrepreneur may lack capital to buy stock or raw materials in bulk which allows them to benefit from economies of scale. They may also lack capital to engage in marketing activities, research and development or to purchase equipment which would help their business to expand. For example, a phone charging entrepreneur may lack the capital to buy additional solar panels that would increase the number of phones they could charge at one time.

• Sourcing

An entrepreneur may struggle to source low cost, quality products and raw material in the local area. This is a particular problem for cook stove producers where the cost of clay can vary between different regions. The sourcing of quality products is also a challenge in the solar business with many substandard products on the market. Sourcing of equipment may also be a problem, for example measuring tools in the briquette business can be used to establish the quantities of materials going into each batch, to price the product accordingly.

• Quality

Entrepreneurs may struggle to uphold quality in their products which would help them maintain customers and fetch higher prices.

Figure 1 below shows the number of entrepreneurs that identified the above areas as marketing challenges out of the 104 entrepreneurs that received market development support during April – June 2010 (Q9 of DEEP EA).

![Figure 1: Number of entrepreneurs that identified the marketing challenge during Market Development Support activities carried out by DEEP EA mobilization partners between April – June 2010.](image-url)
Figure 1 shows that finding new markets was the most common marketing challenge identified by 27 (26%) entrepreneurs who received market development support (MDS) during Q9 of the program. Another major challenge identified was quality – specifically producing products at a high quality to maintain and access new markets. Sourcing of products and raw materials, and lack of capital were also a major challenge. The results highlight the range of marketing challenges that entrepreneurs are facing and confirm the need for such a study to further investigate these challenges and propose solutions to help entrepreneurs overcome them.

2.3. Results from similar studies

Studies can be found relating to rural energy markets such as the Friends of the Earth Norway report on sustainable energy solutions in East Africa\(^1\), which gives lack of business skills, access to finance and market awareness as limiting factors affecting market development in rural areas in East Africa. However many of these reports do not have a specific focus on marketing or give details of how marketing is being applied in the field based on first-hand experience from entrepreneurs.

Information regarding the distribution and marketing strategy adopted by GTZ and Restio Energy to bring the StoveTec stove into rural South Africa was reviewed and a summary of the findings can be found in Annex 5. Several of the marketing techniques adopted in this strategy were included in the entrepreneur’s questionnaire during the discussion on promotional techniques.

Research conducted by AudienceScapes a not for profit research organisation in Kenya analysing the media use and communication habits of a nationally representative sample of Kenyans was also reviewed. This research provides insight into the communication habits and effectiveness of media in disseminating information and provided insights that could be useful from a marketing point of view as summarized in Annex 4.

3. REPORT OBJECTIVES

3.1. Aims

In a country of approximately 39 million people, only 14% of Kenya’s population have access to grid electricity. This statistic is even lower in the neighbouring countries of Uganda and Tanzania with many households in East Africa relying on biomass, dry cell batteries and kerosene to meet their energy needs, mostly for cooking and lighting. Such statistics show that the demand for alternative and clean energy products exists in East Africa, yet many energy entrepreneurs are struggling to find wider markets and grow their businesses.

Marketing is a central activity for any business to grow and this study aims to better understand how micro and small energy businesses are currently undertaking their marketing, review the main marketing challenges that energy entrepreneurs are facing and evaluate the effectiveness of marketing support being offered by DEEP EA. Different aspects of the marketing mix will be considered along with factors that affect the marketing approach taken by energy MSE’s.

It is intended that through a better understanding of energy MSE’s current marketing strategies and challenges this report can propose ways in which DEEP EA can increase its effectiveness to support energy entrepreneurs in improving their marketing activities and capability. As a result, it is expected that energy entrepreneurs will grow their customer reach and more people throughout East Africa will have access to clean energy products in line with the DEEP EA objectives.

Though many sections of this report may be relevant to the development community, energy product suppliers and financial institutes the primary audience are energy entrepreneurs and those developing programmes aimed at supporting them.

3.2. Objectives

The report will achieve the following:

1. Establish the main marketing challenges faced by energy MSEs within the DEEP EA programme and the opportunities they have identified to grow their businesses.
2. Examine the markets energy MSEs have identified for their business and characteristics of these markets along with factors that affect their access to markets.
3. Investigate how energy MSEs are applying the marketing mix (product, price, promotion, place) in their businesses.
4. Examine the impact of DEEP EA on energy MSE marketing.
4. METHODOLOGY

This section discusses the data collection tools and the sampling frame used to collect the data from which conclusions in this report were drawn.

4.1. Design of questionnaires

Two questionnaires were designed to collect the data necessary to establish the project objectives as listed above – one for energy entrepreneurs and the other for energy consumers.

4.1.1. Questionnaire for energy entrepreneurs

The questionnaire for energy entrepreneurs covered many areas of the entrepreneurs business including the marketing mix, business finances, challenges and opportunities and the support they had received from DEEP EA. The points listed in sub section 3.2 were identified as the main objectives for the purpose of this report but further areas could also be investigated from the data collected in the questionnaire. The list of topics covered by the questionnaire can be found in Annex 3.

The interviews took place in person with the entrepreneurs usually at their business premises. Alongside the interviewer a DEEP EA mentor was present, in most cases the mentor of the entrepreneur being interviewed. As someone who is well known to the entrepreneur the mentor was present to provide local context on the business and help them feel at ease. In many cases they also acted as a translator, converting the questions and answers between English and the local language.

4.1.2. Questionnaire for energy consumers

The questionnaire for energy consumers was designed to cover the consumer’s energy usages at home for the technologies that DEEP EA entrepreneurs are involved in - namely cooking, lighting and phone charging. The topics covered in the questionnaire can be found in Annex 3. Again a local mentor was present during the consumer interviews to aid with translation between English and the local language.

4.2. Sampling frame

Thirty seven energy entrepreneurs and 22 energy consumers were interviewed for this study, representing a small sample size relative to the number of energy MSE’s and consumers available. The energy entrepreneurs interviewed were not randomly selected and hence the results presented in this study are indicative. The study provides qualitative insight into dominant issues relating to marketing amongst the sampled businesses.
4.2.1. Energy Entrepreneurs

The questionnaires were completed with entrepreneurs in all of the three countries where DEEP EA operates – namely Kenya, Uganda and Tanzania - to get representation from across the project region. Entrepreneurs were visited in the following areas:

1. **Kenya, Coastal Region** – Kaloleni, Taru, Kinango and Ukunda
2. **Tanzania, Mwanza Region** – Magu, Misungwi, Kisesa, Ngudu and Nyakato

When choosing the sample frame of energy entrepreneurs in each of these regions the following factors were considered:

- **Gender** – Ideally an equal number of male and female entrepreneurs should be interviewed. This was difficult in some regions such as Coastal Region, Kenya where there are a lot more male entrepreneurs compared to female.

- **Technology** – Although DEEP EA supports a total of 8 technologies, the three main technologies in which entrepreneurs are involved were chosen for this study – namely improved cook stoves (ICS), solar and briquettes. Again solar can be further split into solar phone charging and solar stockists (many of whom also do solar installation). The aim was to have an equal representation of the technologies in each of the regions. This proved difficult however since some technologies are much more prevalent than others in some regions. For example in Tanzania there are very few briquette makers compared to Uganda where there are many.

- **Business Arrangement** – The sample aimed to represent both business run by individuals and those arranged as groups to take account of differences in their marketing approach. In the DEEP EA program more individual businesses exist and this is shown in the sample taken.

- **Quarter Trained** – Entrepreneurs have been trained under DEEP EA since mid-2008. The sample aimed to choose entrepreneurs that had been trained early on in the program with the idea that these entrepreneurs would have had more time to put the training and advice from DEEP EA into practice and develop their marketing strategies.

- **Market Development Support (MDS)** – Both entrepreneurs that had received MDS and those that hadn’t were chosen for the sample to compare the influence of the marketing support on entrepreneurs approach to marketing.

- **Business Existence** – The sample aimed to represent businesses that existed before joining DEEP EA and those that had started up as a result of DEEP EA to take account of differences in their marketing approach.
4.2.2. Energy Consumers

Consumers were chosen in the same areas where the DEEP EA entrepreneurs were operating. Everyone has energy needs within the home and there was no special selection criterion when choosing who to interview. The sample tried to maintain an equal number of male and female consumers.
5. **RESULTS AND ANALYSIS**

5.1. **Marketing Support Provided by DEEP EA**

Marketing support is offered to entrepreneurs as part of the DEEP EA program through training, mentoring and group networking sessions. This section describes the support activities offered to entrepreneurs and looks at some case studies highlighting how DEEP EA entrepreneurs are benefiting from them.

5.1.1. **Marketing Training**

The technology and business training, given to entrepreneurs when they join DEEP EA, includes a marketing module which introduces marketing topics and techniques to entrepreneurs such as elements of the marketing mix, raising product awareness and customer care.

Exercises are included in the modules after each topic is introduced to allow the entrepreneurs to relate the theory to their own business and circumstances. As discussed in sub section 4.3 and 4.4 there is evidence that entrepreneurs are utilizing this marketing training through identifying markets for their businesses and engaging in promotional activities.

5.1.2. **Market Development Support**

Market development support provides advice on specific marketing issues that have been identified for an entrepreneur’s business, administrated as a one off activity (see Annex 2 for MDS process).

Different approaches are taken for this activity in the different DEEP EA regions, for example:

- In Kenya’s coastal region entrepreneurs had been given advice on potential new markets, with DEEP EA trying to form a link between the entrepreneur and organisations they can supply their products to.

- In Tanzania entrepreneur had received advice on marketing techniques, how to get markets and different places to advertise delivered in both a classroom and one to one environment

- In Uganda entrepreneurs involved in briquettes and improved cook stoves and had been taken around the market to demonstrate their products, often with the use of a mega phone and giving out free samples.
5.1.3. Mentoring

Mentoring is intended to encourage and support entrepreneurs in putting the marketing theory learnt at the training into practice. Mentors meet regularly with an entrepreneur and carry out a diagnostic of their business, including the marketing activities they are doing. From this they identify priority areas where further advice and support is required and work together with the entrepreneurs to overcome these challenges through several mentoring sessions.

It was promising to see entrepreneurs mention marketing as an area where they had benefitted from mentoring and the case studies below highlight some of the support mentors have provided.

**Case Study: Fredrick Ddamba – Clay Stove Producer – Kyewatule, Uganda**

Fredrick has received market development support from DEEP EA. He was given advice on how to look for markets for his clay stoves and ways to advertise his products such as door to door promotion and other marketing techniques. During the session he was also advised to start putting a stamp on his product to distinguish it from others in the market. DEEP EA staff came with a vehicle and together they drove around the market, showing people his products. As a result of this promotion Fredrick got four new wholesale buyers from the market that saw him that day. He has also started putting a mark on his stoves to distinguish them from others on the market.

**Case Study: Namusoke Damali**

Namusoke Damali is a briquette maker from Kampala, Uganda. During sessions with her mentor Sharon they discuss marketing techniques and identify possible new markets.

To put this advice into practice Sharon gave free samples of Damali’s briquette to ICS sellers in the local area to try and create new market linkages.

*Namusoke Damali (left) with her DEEP EA mentor Sharon discussing her briquettes*
5.1.4. Group Networking Sessions

Group networking events bring together DEEP EA entrepreneurs in the local area as well as other stakeholders such as financial institutes or product suppliers. There is no financial cost to the entrepreneur to attend the event and they are able to network with other people in the sector, exchange ideas and create market links. These events often include an exhibition which is open to the public, where entrepreneurs can promote their business and make sales of their product.

Table 1 shows the main areas where entrepreneurs felt they gained benefits from the group networking sessions with market linkage the second most noted benefit.

**Table 1: Benefits entrepreneurs have received from group networking sessions**

<table>
<thead>
<tr>
<th>Area of benefit</th>
<th>Out of 18 entrepreneurs that have attended group networking % that said they had benefited in this area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Advice</td>
<td>11%</td>
</tr>
<tr>
<td>Business Ideas</td>
<td>61%</td>
</tr>
<tr>
<td>Gauge level of business</td>
<td>17%</td>
</tr>
<tr>
<td>Learn from others problems</td>
<td>17%</td>
</tr>
<tr>
<td>Market Linkage</td>
<td>22%</td>
</tr>
<tr>
<td>Customer Care</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Case Study: Dominic Donald**

Dominic Donald is an ICS producer from Misungwi, Tanzania. Following on from advice from his mentor Dominic has started putting labels on his ‘Mwananchi’ stoves as a form of branding and advertisement. The labels give his business name, location and contact details. He has also opened up an email account after advice from his mentor allowing customers to get in touch with him more easily.

The stickers that Dominic puts on his stoves to advertise his business following on from advice from his mentor.
5.2. Marketing Challenges and Opportunities

During the interviews entrepreneurs were asked about the main business and marketing challenges they face, how they see their business growing in the future and how they plan on achieving this growth.

5.2.1. Business and Marketing Challenges

Out of the 36 entrepreneurs interviewed, 22 (61%) said that finance or lack of capital was one of their main business challenges. Entrepreneurs were probed further to ascertain the need for this finance and the main reasons given were to expand their stock, buy machinery or to help with marketing. These responses were grouped accordingly, as shown in Figure 2, which presents the main business challenges that entrepreneurs identified.

![Figure 2: Percentage of entrepreneurs who identified area as a main business challenge for all entrepreneurs interviewed.](image-url)

**Case Studies**

**Peter Daudi** is an ICS producer from Magu in Tanzania. The group networking session he attended enabled him to meet other people in similar businesses and gave him an opportunity to exchange ideas and market his products. From the networking session Peter gained two new customers in Ngudu (125km away) and Bariadi (70km away) who order around 5 stoves per week.

**Marjoret Kisakye** is a briquette producer from Masaka, Uganda. She attended a group networking event in Kyoterra where she took her briquettes to show people. She took 30kg with her on the day selling all of them and receiving 12 more orders. Many people asked where they could find her business and customers from the event have since come back.
From Figure 2 it can be seen that marketing was third (36%) to lack of finance to expand stock and lack of adequate equipment as a major business challenge identified by entrepreneurs. Other business challenges given included transportation and lack of business skills. Table 2 below shows these business challenges broken down for each energy technology.

**Table 2: Percentage of entrepreneurs that identified area as a main business challenge in each technology**

<table>
<thead>
<tr>
<th>Main business challenge identified by entrepreneurs</th>
<th>Percentage of entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improved Cook Stoves (out of 14)</td>
</tr>
<tr>
<td>Money to expand stock / raw materials</td>
<td>57%</td>
</tr>
<tr>
<td>Lack of adequate equipment</td>
<td>14%</td>
</tr>
<tr>
<td>Lack of business /technical skills</td>
<td>14%</td>
</tr>
<tr>
<td>Transportation</td>
<td>29%</td>
</tr>
<tr>
<td>Marketing</td>
<td>36%</td>
</tr>
<tr>
<td>Availability of raw materials</td>
<td>21%</td>
</tr>
<tr>
<td>Chasing credit</td>
<td>7%</td>
</tr>
<tr>
<td>Weather restrictions</td>
<td>7%</td>
</tr>
</tbody>
</table>

Table 2 shows that some of the challenges identified are more prominent for certain technologies. For example, for those involved in ICS and stocking solar products, finance for expanding stock was the most frequent challenge. For those involved in solar phone charging and briquette making, lack of adequate equipment was the most frequent challenge, i.e. a solar system with sufficient power or a briquette machine to increase production.

Although not the topmost challenge, marketing was identified across all technologies. It also comes into play with many other challenges identified, for example, for a solar stockist, increasing their stock to include a demonstration system would allow them to do public demonstrations as part of their product promotion, hence a lack of finance to expand their stock is affecting their marketing capability.

*Pius Mutinda Mulinge, who sells and installs solar panels in Ukunda, Coastal region, Kenya.*
Entrepreneurs were asked specifically what their major challenge is, in terms of marketing. The main marketing challenges that entrepreneurs identified are shown in Figure 3. In addition, Table 3 gives the breakdown for entrepreneurs interviewed who are involved in the different technologies.

Competition (25%) was the main marketing challenge identified by entrepreneurs and was a challenge identified across all the technologies. Competition can come from entrepreneurs in the same business as well as substitute products, for example, briquette makers face competition from charcoal sellers and firewood as well as other briquette businesses. A more detailed discussion on how competition can affect energy MSEs is given in sub section 5.3.4.

Further challenges acknowledged included identifying new markets, taking time away from the business to engage in marketing activities, finances for advertising material and knowledge on advertising techniques with some marketing challenges specific to certain technologies.

The challenges identified during the interviews echo those that were identified by the mobilisation partners during market development support sessions conducted in April – June 2010 (see sub section 2.2). During these sessions the most common problem identified was accessing new markets, followed by quality, sourcing of products and raw materials and lack of capital.

Figure 3: Percentage of entrepreneurs that identified the marketing challenges listed for the 36 entrepreneurs interviewed.
### Table 3: Percentage of entrepreneurs that identified the marketing challenges listed for each of the different technologies.

<table>
<thead>
<tr>
<th>Main marketing challenges identified by entrepreneurs</th>
<th>Improved Cook Stoves (out of 14)</th>
<th>Solar Phone Charging (out of 5)</th>
<th>Solar Stockist (out of 6)</th>
<th>Briquette Producers (out of 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>21%</td>
<td>20%</td>
<td>33%</td>
<td>22%</td>
</tr>
<tr>
<td>Insufficient stock</td>
<td>7%</td>
<td>-</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>21%</td>
<td>-</td>
<td>17%</td>
<td>11%</td>
</tr>
<tr>
<td>Finances for advertising material</td>
<td>14%</td>
<td>40%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Finances for samples</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>22%</td>
</tr>
<tr>
<td>Marketing techniques</td>
<td>7%</td>
<td>20%</td>
<td>17%</td>
<td>11%</td>
</tr>
<tr>
<td>Time away from business</td>
<td>7%</td>
<td>20%</td>
<td>17%</td>
<td>-</td>
</tr>
<tr>
<td>Distribution channels</td>
<td>36%</td>
<td>-</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Finding new markets</td>
<td>14%</td>
<td>-</td>
<td>17%</td>
<td>22%</td>
</tr>
</tbody>
</table>

**Distribution Challenges - Improved Cook Stoves**

A lack of distribution channels was the most frequent challenge identified by improved cook stove entrepreneurs. For ICS producers high costs can be involved in transporting the stoves to the end user. Customers are often far from their place of work or stoves are sold at different market days in the region.

Transportation costs can increase the price of the stoves and cut into the entrepreneur’s profit margin. Entrepreneurs businesses are often located in remote towns connected by bumpy dirt roads. During transportation products can break resulting in losses for their businesses. In some areas transporting products by bicycle is the easiest method but this limits the number of stoves that can be taken each time. Entrepreneurs spoke of purchasing vehicles for their business in the future but this would represent a significant financial investment.

Enock Lucas Hely with his improved cook stoves ready to be transported to market in Nyakato, Tanzania.
5.2.2. Business growth and opportunities

During the interviews entrepreneurs were asked how they see their business growing in the future and what ideas they had to help them achieve this growth. Figure 4 shows the growth that entrepreneurs envisaged for their business in the future. Figure 5 then shows the ideas that entrepreneurs had for achieving this growth.

**Business Goal**

- Access new markets: 33%
- Improve facilities: 31%
- Increase stock / product range: 25%
- Open an outlet in another location: 22%
- Employee more people: 14%
- Diversify: 8%

**Figure 4:** Percentage of entrepreneurs that identified the above goals for growth in their business.

**Idea to achieve business growth**

- Take a loan: 68%
- Slowly build capacity: 19%
- Through marketing: 13%
- Other: 10%
- Through DEEP support: 6%

**Figure 5:** Percentage of entrepreneurs who identified the above ideas as ways of achieving business growth.
Accessing new markets was the main goal that entrepreneurs had to achieve growth in their business (33%), with entrepreneurs aiming to increase their customer reach and access markets such as wholesale buyers and institutions. This was followed by improving business facilities (31%) and increasing their stock or product range (25%). Although 12 (33%) entrepreneurs were seeking to access new markets, Figure 5 shows that only 4 (13%) entrepreneurs planned to achieve growth in their business through marketing. Instead, 21 (68%) entrepreneurs planned to take a loan to achieve growth in their business. Many entrepreneurs felt that they could not engage in intensive marketing activities until they had a large amount of stock ready for the influx of customers they anticipated.

Goals for business growth such as opening a second outlet and expanding a product range also have marketing aspects to them. For these goals to be successful a new shop or product range needs to be promoted to potential customers in the area and decisions made about pricing and placement of the product.

Case Studies – Challenges & Opportunities

**Immaculate Nakitende** sells solar lanterns and is based in Kyamulibwa near Masaka, Uganda. Transport is a major challenge for Immaculate when it comes to marketing. She sells her solar lanterns across the region and will travel as far as 200km away to visit potential customer and perform product demonstrations. As a result she pays a lot for transport. In the future Immaculate would like to buy a car to help her travel around promoting her products.

She would also like to open up a shop in Musaka that customers can visit - reducing the amount she must travel. To achieve this growth Immaculate intends to slowly build up the capacity of her business and save money from her earnings. Her daughter is soon to finish school and Immaculate plans to utilise the funds she spent on school fees to help grow her business.

**John MweroKadzoyo** installs and repairs solar panels and stocks solar products in Taru, Coastal Region, Kenya. John does not have any solar panels in stock to carry out demonstrations to promote his business, which is a major challenge for his marketing.

In the future John would like to stock solar panels and expand his product range into smaller solar systems which have a 5 Watt panel and two LED lights. He feels these systems are much more affordable for local people and will help increase his market. John’s wife has applied for a loan from Kenya Women Finance Trust Ltd, a micro finance institution, and they are relying on this to help achieve growth in his business.
5.3. Customers and Markets

During the interviews, entrepreneurs were asked about their customers and the markets they had identified for their products or services. This included a discussion on the gender of their customers, their customer reach and factors that may affect their access to markets, such as seasonality and competition in the area. The responses from these questions are summarized below along with analysis and discussion.

5.3.1. Customer Characteristics

During the interviews entrepreneurs were asked what percentages of their customers were male and female and the reason for having customers of a particular gender. The responses given are summarised in Table 4 below. From the responses given it can be seen that the gender of a customer depends on the energy technologies that he/she buys, with solar business attracting more male customers and ICS and briquette businesses attracting more females. Reasons given for having customers drawn from a particular gender included traditional roles within the household and differing levels of access to finance between genders.

Table 4: Percentage of entrepreneurs that had customers drawn from a particular gender across the different technologies, along with reasons for this.

<table>
<thead>
<tr>
<th>Technology</th>
<th>% of entrepreneurs with majority of customers in given gender</th>
<th>Examples of reasons given for having customers drawn from a particular gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar (out of 13)</td>
<td>Male 69% Female 8% Equal 23%</td>
<td>Men are responsible for making decisions regarding significant sums of money, men have more access to capital than women, business is located in an area where many men are employed.</td>
</tr>
<tr>
<td>Improved Cook Stoves (out of 15)</td>
<td>- Male 0% Female 80% Equal 20%</td>
<td>Women are more involved in cooking in the household.</td>
</tr>
<tr>
<td>Briquettes (out of 9)</td>
<td>- Male 0% Female 50% Equal 50%</td>
<td>Women are involved in cooking and using the briquettes, men use briquettes for cooking in restaurants.</td>
</tr>
</tbody>
</table>
Accounting for customer characteristics

From a marketing point of view it is interesting to see how traditional roles influence purchasing trends in the energy sector and how small entrepreneurs are accounting for this. None of the entrepreneurs visited mentioned that they target a specific gender in their product promotion or identified them as a separate market. However it is clear that some businesses are tailored towards one particular gender; for example many of the ICS stockists visited are selling cook stoves alongside cosmetic products or fabrics, also traditionally associated with women, whilst solar suppliers are selling hardware items and offering electrical repair services.

On the other hand by only targeting one gender as the market for a product, entrepreneurs are ignoring a large consumer pool in the other gender. And increasingly these days in East Africa women have more access to finance than before. For example many are members of women’s groups and rotating savings and credit associations which can increase their access to finances. Microfinance institutions are also developing energy portfolios to help consumers access finance for energy products and combining this with raising energy product awareness.

5.3.2. Customer Reach

During the interview, entrepreneurs were asked where their customers come from. The 35 responses were grouped into categories in terms of distance away from the entrepreneur’s business as shown in Table 5.

Table 5: Percentage of entrepreneurs that thought their customers came from the given distance, for the different energy technologies.

<table>
<thead>
<tr>
<th>Furthest distance customer come from</th>
<th>Briquettes (out of 8)</th>
<th>Improved Cook Stoves (out of 14)</th>
<th>Solar Installation (out of 8)</th>
<th>Solar Phone Charging (out of 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5km</td>
<td>88%</td>
<td>50%</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>10km</td>
<td>-</td>
<td>-</td>
<td>50%</td>
<td>-</td>
</tr>
<tr>
<td>20km</td>
<td>12%</td>
<td>29%</td>
<td>33%</td>
<td>-</td>
</tr>
<tr>
<td>30km</td>
<td>-</td>
<td>-</td>
<td>17%</td>
<td>-</td>
</tr>
<tr>
<td>50km or more</td>
<td>-</td>
<td>21%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

From Table 5 it can be seen that the distance entrepreneur’s customers are prepared to travel to purchase a product or service can vary from 5km to 50km. The results suggest that it is dependent on the business technology as well as individual business aspects.

The following factors have been identified, which may affect the customer reach of a business.
**Technology** – The data presented in Table 5 suggest that the distance customers will travel, varies depending on the product or service that is being sold. For example customers for a phone charging service are only prepared to travel the minimum distance (less than 5km) to access this service. The same is true of briquettes, with the majority of customers travelling less than 5km. Customers of a briquette business may buy in small quantities several times a week to meet their cooking needs and will favour suppliers that are close to their home.

Customers of improved cook stoves may be prepared to travel further to purchase this item, perhaps picking them up when they are visiting the nearest town. The results also suggest that people requiring solar installation will be prepared to look further afield for this service. In the case of entrepreneurs selling solar lanterns it is common that they will travel to their customers, demonstrating and promoting the lanterns, rather than sell them from a given location. This means that an entrepreneur can cover a large distance and have customers from many different areas.

**Promotion** – Entrepreneurs that engage in promotional activities with a large audience reach may attract customers from further afield as a result. Such promotional activities could include radio advertising, attending exhibitions in other regions or linking with institutions that promote products in other areas.

**Type of customers** - Wholesale buyers may be prepared to travel further to purchase a product than those buying for retail, since they buy in large quantity. This was evident in the responses from ICS producers who had wholesale customers that came from further away from the majority of their retail customers.

**Quality** - Customers may be prepared to travel further for quality products. This is particularly true for wholesale buyers since they are going to sell them on further and need quality products to attract their own customers. Quality is also important for customers of solar panel stockists who will want a product that will last for many years. They may also be prepared to travel further for this, especially if they have received a recommendation.

**Location** - The location of an entrepreneur's business can also play a role in their customer reach. If an entrepreneur has a business located on a main route people from other towns may purchase their products and recommend them to other people further away. For those 11 entrepreneurs attracting customer from as far as 10 -30km away, 82% of them were judged as having an identifiable business premise, with all of these based on a road either in a commercial centre or on the way to one.
For entrepreneurs located in rural areas there are not always as many institutions and commercial businesses close by compared to those in more urban areas or commercial centres and they may rely on local households as their main source of customers.

**Competition** - The number of competing business in an area may also effect the distance customer will travel. For example, if there is no ICS supplier in town customers will have to travel further to a neighbouring town to purchase this. This is evident in the responses with entrepreneurs who had little competition in the area fetching customers from further afield.

### 5.3.3. Market Segmentation

Market segmentation is the process of dividing a total market into market groups consisting of people who have relatively similar product needs. A market segment can consists of individuals, groups or organizations separated by common characteristics such as location, gender, lifestyle and purchasing patterns\(^2\). Once a business has identified the different markets for its products or services it may decide on one of these groups as its target market. A target market is a group of customers that the business has decided to aim its marketing efforts and ultimately its products and services at. By focusing on one specific market area, marketing campaigns are likely to be more cost and time efficient\(^3\).

**Markets Identified**

Entrepreneurs were asked what markets they had identified for their product or services. Table 6 lists the responses in terms of the percentage of entrepreneurs that had identified each market, for the different technologies sampled.

### Table 6: Percentage of entrepreneurs that had identified each market for their business, for the different technologies sampled.

<table>
<thead>
<tr>
<th>Market</th>
<th>Solar Phone Charging (out of 5)</th>
<th>Solar Installation (out of 6)</th>
<th>Improved Cook Stoves (out of 14)</th>
<th>Briquettes (out of 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>100%</td>
<td>100%</td>
<td>86%</td>
<td>89%</td>
</tr>
<tr>
<td>Restaurants</td>
<td>0</td>
<td>0</td>
<td>21%</td>
<td>67%</td>
</tr>
<tr>
<td>Institutions</td>
<td>20%</td>
<td>17%</td>
<td>14%</td>
<td>33%</td>
</tr>
<tr>
<td>Commercial</td>
<td>0</td>
<td>33%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hotels</td>
<td>0</td>
<td>0</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>0</td>
<td>0</td>
<td>43%</td>
<td>22%</td>
</tr>
</tbody>
</table>


\(^3\) [http://www.marketing-magic.biz/workshops/targeted-marketing/tm-2.htm](http://www.marketing-magic.biz/workshops/targeted-marketing/tm-2.htm) (accessed 16/05/2011)
• Across all of the technologies, households were identified as the main market for the products or services the entrepreneur sold.
• For solar installations, commercial clients and institutions were identified as markets with entrepreneurs having installed systems for hospitals and for businesses such as hair salons.
• For ICS, wholesale was identified as a prominent market and entrepreneurs had additionally identified restaurants and institutions as their markets.
• For briquette entrepreneurs, 6 (67%) had identified restaurants as a market as well as institutions and wholesale buyers.

Customers that live in the local area are often the ones reached using promotional techniques such as displays outside business premises, door to door promotion and word of mouth. Accessing markets such as institutions and restaurants may require a different promotional strategy but if these markets can be tapped they can represent large potential revenue for businesses. Institutions and restaurants are more likely to buy goods in larger quantities, for example with briquettes, restaurants will consume a lot more cooking fuel within a day than the average household and hence will buy in larger quantity or more frequently if the product is right. They may also have more budgets to purchase goods.

Some entrepreneurs may feel that they cannot access markets which require goods in large quantity because they do not have sufficient supply of stock to meet such demands or stock of high quality. This can put entrepreneurs off marketing to these groups, since they feel they do not have the finances to service large quantities of orders if they received them.

A briquette entrepreneur visited in Uganda had received an order from a wholesale buyer for 120kg which she was unable to service because she did not have such a quantity of briquettes in stock. One entrepreneur involved in solar installation was required to take out a loan after receiving a large order to install solar panels at hospitals within the area. Such facilities are not always available to entrepreneurs or can involve a long process before funds can be secured.
Target Markets

During the interviews the concept of target markets was discussed with entrepreneurs and they were asked about the groups they target. This was not a straightforward question since many of the entrepreneurs did not understand the terminology of target market although they understood the concept. The concept was explained to them, to help them to understand the question fully, but this may have influenced their responses since examples of target markets were given to them.

- Out of the 21 entrepreneurs that responded to this question, 52% of them said that they do not have a target market or that they target everyone.
- Of the 10 entrepreneurs that said they had a target market, 50% were in solar installation, 67% in briquette production and 20% in solar phone charging.
- No entrepreneurs involved in ICS said they had a target market.
- Those involved in briquette production mentioned hotels, schools and restaurants as their target markets, whilst solar installers had a target market of off grid areas and those residents that returned from bigger towns during the holiday season.
- No entrepreneurs had identified any particular gender as their target market.

Many entrepreneurs may see that specifying a target market for their product rather than targeting the whole market will narrow down their potential sales. Entrepreneurs may also be limited in the markets they can access by the location of their business and the resources they have available to them. Transportation of products was a major challenge identified by many entrepreneurs and their target market may not be available in the vicinity of their business.

5.3.4. Competition

Entrepreneurs were asked how many competitors they had in the local area. Figure 6 below shows that out of the 36 energy entrepreneurs interviewed 17 (47%) have 3-6 competitors to their business in the local area. 5 entrepreneurs (14%) said they had no competitors in the area whilst 5 (14%) said they had more than 7 competitors in the local area.

Those entrepreneurs with no competition were mixed across the technologies but their lack of competition could be put down to having a niche product or a remote business location away from other traders.

Three of the entrepreneurs that said they had 7 or more competitors in the area were involved in ICS production. Although they had an individual business and sold their products individually these entrepreneurs were located as a group, working close to several other businesses producing the same product. Working in this group environment can have benefits as businesses may share tools and can share ideas and advice. The businesses may also call on each other if they run out of raw materials or they have a large order that they cannot fully service. In this way the businesses can pool their resources and make sure they can service large orders and retain customers.
The other two entrepreneurs with more than 7 competitors in the local area were involved in solar phone charging. As well as competition from others using solar for phone charging they also faced competition from those using grid electricity.

**Case Study**

*Peter Daude* and *Renatus Faustine* are two ICS producers from Magu in Tanzania. They both run successful businesses located next to each other and selling similar products. However, instead of seeing this as a hindrance to business they see it as an advantage. Peter says that being right next to his competitor he can see what products he has and what he is selling well. If his competitor has something missing that a customer requires he will send them to Peter’s shop and in this way they both receive good business.

**Figure 6** : Number of competitors energy entrepreneurs identified in the local area

**Competitor Analysis**

Only 7 (19%) of the 36 entrepreneurs interviewed said they had done research into their competitors. However it was clear that they were aware of aspects of competing business. When entrepreneurs were asked the price their competitors sell their products at, only 3 (10%), of the 30 that answered, said they didn’t know. For those that did know, 33% said their competitors sell at a higher price, 17% at a lower price and 43% said their competitors sold at the same price as them. Entrepreneurs identified quality, service offered and materials used as the main areas they are superior to their competitors.
The case study below highlights the impact that competition can have on a business.

**Case Study - Impact of competition**

*Constance Murima*, had a solar phone charging business in Mishomoroni, Coastal Region, Kenya. Constance started her phone charging business in 2002. At the time there was no grid electricity in the area and the nearest phone charging shop was 3km away. She had a constant supply of customers and would charge 25 KES per charge. In 2006 grid electricity was bought to the area, with two houses connecting at first, followed by many more.

Due to the introduction of grid electricity many kiosks in the area started offering phone charging services and people could now charge their phones at home. They were also able to offer the service at a much lower cost of 10 KES. Although Constance reduced her price to keep up with the competition she no longer has enough customers to sustain her business and is instead relocating to another area where grid electricity is not available.

5.3.5. **Seasonality**

The data shows that seasonal variations exist in East African markets. There are times of the year when customers or their capability to pay is increased. Such variations often coincide with harvesting seasons, whether this is cotton, crops or fish. It was noted by several entrepreneurs that during harvest time, many people have more money available to them, from their recently sold crops, to spend on household items. During these periods (June – Aug) they often have increased sales compared to other times in the year.

Holiday times such as Christmas can also provide a boost to entrepreneur’s sales. As workers from the cities return to the rural family home for this period they often bring money into the area and seek to buy new items for the household. A solar entrepreneur from Taru in Kenya described how during December alone he made sales of 60,000 KES ($670) with one customer having 4 solar panels installed in their home. It is not just with the household market that this seasonality exists. Institutions such as schools also experience variations in their income which coincide with the paying of schools fees in January, May and September.

Seasonality can also affect the capacity of energy businesses. Those involved in ICS production and briquette making often have a reduced production during the rainy season since it is more difficult to dry their products and they can get destroyed more easily. Due to this the demand for stoves can increase during this season since there are less available in the market. The farming season can also affect a business’s capacity- if the entrepreneur is also involved in farming they may concentrate on this business during planting season (Jan – March) reducing efforts in their energy business.
5.4. Promotion Techniques used by DEEP EA Entrepreneurs

Promotion is one of the four elements of the marketing mix and a central activity to any marketing strategy. Engaging in effective and appropriate promotion techniques can have a big impact on sales and increase a business's market reach. This chapter discusses the promotional activities entrepreneurs engage in and their effectiveness.

5.4.1. How entrepreneurs promote their businesses

During the interviews entrepreneurs were asked what their most effective form of promotion was. The responses are given in Figure 7 and show that 10 (36%) out of the 28 entrepreneurs that responded thought that word of mouth was their most effective promotion technique. This was followed by hawking (14%), product displays (10%) and promoting at community meetings (10%) as effective techniques. The following pages discuss some of these techniques in more detail.

![Figure 7: Percentage of entrepreneurs that thought promotion technique was their most effective](image)

**Word of Mouth**

Out of the 37 entrepreneurs interviewed 20 (54%) said they used word of mouth (WOM) as a form of promotion for their business. Telling others about a product or service they have used comes naturally to consumers and for entrepreneurs it represents a low cost form of promotion that requires no resources or specific skills. Through maintain high levels of quality and customer care in their business, entrepreneurs can try to encourage this flow of positive promotion.
5.4.2. Use of poster, flyers and other promotional material

Out of the 36 entrepreneurs sampled only 15 of them (41%) had used promotional material. Those that had used this technique were mixed among the technologies sampled. Out of the 15 that had used promotional material, 10 of these had used posters to advertise their business.

**Sources of advertising material**

Entrepreneurs were using poster from a variety of sources. Some entrepreneurs were using posters provided by product suppliers, for example Sun King poster for solar lanterns and Safaricom poster for solar phone charging. Others were making basic posters themselves to advertise their business with 4 entrepreneurs saying they wrote posters by hand and put them by the roads and market. DEEP EA has also produced posters for the different technologies that entrepreneurs can use to advertise their business.

The posters provided by DEEP EA and the majority of supplier posters are written in English. A survey conducted in Kenya in 2010 by InterMedia, sampling 2000 Kenyans, found that whilst speaking and understanding Kiswahili is quite common, only 59% of rural respondents said they can speak and understand English, compared to 80% of those in urban areas.

For the 21 entrepreneurs that had not used poster or advertising material for their business 52% said this was due to the expense of creating such material with several also mentioning lack of knowledge of how to create or where to print posters and flyers.

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**Customised Advertising Material**

During the fieldwork visits there was evidence of entrepreneurs that were starting to create customized advertising material for their business.

- Two entrepreneurs had created business cards whilst one had created a calendar to advertise their business.
- Two cook stove producers in Tanzania had started creating labels for their products detailing their business name and contact details.

Although the reach of such advertising may be limited it shows entrepreneurs creating customized advertising material and progressing towards a brand for their business.

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5.4.3. Use of local media in advertising

Unless supported by an external company/organisation, micro entrepreneurs are unable to use the media for advertising as it is often a cost intensive process. Only 3 entrepreneurs out of the 37 interviewed had managed to receive this support. However where TV, radio or newspaper advertisement is used it has the potential to reach large audiences and positively impact sales. A survey conducted by InterMedia in Kenya found that radio remains the most widely available media source, reaching directly into more than 85% of Kenyan adults’ homes ⁵(see Annex 4 for information on InterMedia survey).

Case Study

Rachel Shigella produces cook stoves in Mwanza region, Tanzania. She works closely with the Ukiriguru Agricultural Research Institute, where DEEP EA was also based, which is situated close to her business and sponsors her to provide training on ICS production. When an ex-employee of the institute started working at Star TV he told people there about Rachel’s business. As a result Star TV visited Rachel and did a short feature on her business.

This feature has been showed several times on the TV and has reached audiences as far as Uganda. Rachel feels this free advertisement has had a big impact on her sales of cook stoves and customer reach. Although she cannot quantify the increase in terms of sales, before the TV advertisement she was using around 1 bag of clay per year and now she can get through 10 bags of clay, indicating a significant increase in her customers and production.

⁵Hannah Bowen (InterMedia), March 2010, Information at the Grassroots: Analyzing the Media Use and Communication Habits of Kenyans to Support Effective Development, African Development Research Series.
Case Study

**Mussa Tembe** owns a shop selling solar panels and other electrical goods in Ngudu, Tanzania. He has used both advertising on TV and in local newspapers for his business. He has an advert on local TV once a month costing him around 30,000 TZS ($20) and places an advert in the newspaper every two months. He feels this is an effective form of promotion for his business as he can reach people as far as 80km away.

The above cases highlight the importance of entrepreneurs being active in communicating their business and forming links within the community and wider sector. Through such networking, opportunities for further promotion can often arise.

5.4.4. Use of Product Demonstrations

Out of the 37 entrepreneurs sampled, 23 (62%) said they had used demonstrations to promote their products and services. Product demonstrations are more commonly used by entrepreneurs selling cook stoves or briquettes with 73% of ICS producers and 78% of briquette manufacturers having used this technique compared to 38% of entrepreneurs involved in solar.

**Technology specifics**

If good quality products ICS require less fuel for cooking and briquettes will burn for longer in a cook stove -strong selling points of these technologies compared to traditional alternatives. ICS and briquette entrepreneurs interviewed used practical demonstration to show people these benefits, performing such demonstrations at their workshops, in the market and at community meetings. Especially with a new product like briquettes where consumers may be less familiar with its use and advantages, practical demonstrations can prove to be a powerful tool.

Conversely for solar phone charging there is not much need for a demonstration since most people understand how a mobile phone is charged. With entrepreneurs involved in solar installation and selling of panels, limited working capital often means they do not have the solar panels in stock, instead buying the panel once they have an order. This makes it difficult to do demonstrations of how the solar system works.

**Getting the audience right**

To ensure maximum effect from product demonstrations selecting the right location and audience is important. Entrepreneurs need to consider who will use their product and who can afford it. They should also account for the characteristics of their target market as discussed in sub section 4.3.1.
For example, in rural and peri urban villages in Uganda many people cook with firewood on a traditional 3 stone fire; firewood can be collected for free or bought cheaper than charcoal and there is no expense in buying a stove. Briquettes however need to be used with a cook stove which many people in the rural areas using firewood do not own. Briquette producers may find it more effective to target more urban areas in product demonstrations where cooking with improved cook stoves is more common.

5.4.5. Employing sales teams in local communities

Only 4(11%) of 37 entrepreneurs had used local sales teams as a way of promoting and selling their products with lack of capital to employ people or lack of stock for sales teams the major factor putting entrepreneurs off this technique. For those that had used this technique 3 were ICS producers and one was selling solar lanterns.

Case Study

Immaculate Nakitende sells solar lanterns in rural Uganda. Based from Kyamulibwa near Masaka, she has a team of 5 people who sell the solar lanterns for her on commission. She teaches the sales people about the lanterns and they go out to different communities to sell them. She sells two different types of lights which she retails at 60,000 (~$25) and 50,000 (~$21) and the salespeople will earn 3000 TSH (~$2) each on commission for every lantern they sell. This method, combined with her own sales, results in the sale of around 25 lanterns per month.

Paying on commission

Having a sales team paid on commission helps to overcome the problem of finances for wages as they are not paid up front but on the sale of the product. Although paying sales teams on commission reduces the profit margin entrepreneurs will receive it is an effective way of reaching more customers and increasing sales.
Entrepreneurs however may be reluctant to use this technique, since it will reduce further what can be narrow profit margins they already make on their products, unless they can clearly see that the activity would lead to an increase in sales that would compensate for this. This activity also relies on trust between the entrepreneur and the sales person and they may be reluctant to give their limited stock to other people to sell for them.

5.4.6. Door to Door Promotion

Out of 37 entrepreneurs interviewed 14 (38%) said they had used door to door promotion as a form of marketing for their business. These entrepreneurs represented 100% of those selling solar lanterns, 55% of briquette producers, 40% of mobile phone chargers, 33% of ICS producers and none of those that install solar panels.

For those that had used this technique 50% said that they used it to get customers when they first started their business or when they have a drop in customers. Other entrepreneurs engaging in this technique said they did it irregularly when they were not busy. Several commented that this method was effective in getting new customers but once they had established a market they didn’t continue, since door to door promotion can be time consuming and mean that the entrepreneur is away from their business.

5.4.7. Giving out Free Samples

Giving out free samples is a common form of promotion amongst briquette producers; 13 (35%) of 37 entrepreneurs interviewed said they had used this technique including all 9 involved in briquette production. Others that had used this technique included a solar phone charging entrepreneur who had given out free charges to attract customers when he first started and two clay stove producers in Uganda who had given samples to potential wholesale buyers.

Promoting Briquettes

All of the 9 entrepreneurs involved in briquette selling had given out free samples as a form of promotion, either to people that visited their business, in the market or to hotels and restaurants in the area. Briquettes are a relatively new technology in East Africa and giving out free sample is a good way to show people how they work and allow them to see the benefits of briquettes for themselves. Many briquette entrepreneurs commented that those that received free samples came back and bought more and also recommended them to other people.

The cost of giving out a few briquettes as a sample is relatively cheap considering that the potential customers that could be gained from it could buy in large quantity and frequently with 8 (89%) of the briquette producers sampled saying they sold to restaurants or wholesale buyers.

Giving out free samples is also a technique that has been encouraged amongst briquette producers during market development support activities provided by DEEP EA.
Giving out free samples is not a cost effective form of promotion for all entrepreneurs.

For example, for entrepreneurs selling solar panels, and even ICS, giving out free samples is not a viable option due to the high unit cost and limited stock.

Jane Ntabaddle a briquette producer in Kampala, Uganda. Jane gives out free samples of her briquettes to attract new customers.

5.4.8. Linking With Community Based Organisations

Out of the 37 entrepreneurs interviewed, 20 (54%) said that they had linked with a local community based organisation (CBOs) to promote their products as detailed in Table 7 below.

Table 7: Enterprise promotions through linking with local organisations.

<table>
<thead>
<tr>
<th>How entrepreneurs have promoted their businesses through local organisations</th>
<th>Number of entrepreneurs that had used this technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting at local community meeting and women’s groups</td>
<td>11</td>
</tr>
<tr>
<td>Promotion through link with local institute</td>
<td>4</td>
</tr>
<tr>
<td>Promotion through link with government department</td>
<td>3</td>
</tr>
<tr>
<td>Promotion through NGO status and activities of group</td>
<td>2</td>
</tr>
<tr>
<td>Promotion through local SACCO</td>
<td>1</td>
</tr>
</tbody>
</table>

Impact on Sales

Entrepreneurs commented that community meetings were a good way for people in the community to hear about their business and raise awareness of their products. However it was where entrepreneurs had linked with local institutes and government departments that advertising and promotional opportunities transpired and a real impact on their sales could be seen.
Case Study

**Dominic Donald** produces improved cook stoves in Misungwi, Tanzania. Dominic has formed a link with the Small Industries Development Organisation (SIDO). He gives them products which they display for him and take to exhibitions giving him the money for them upon sale. Through SIDO he had sold 50 stoves in the last two months and estimates that on average he sells 10 stoves a month through them representing around 50% of all his total sales.

**Damali Namusoke** is a briquette producer from Kisubi close to Kampala in Uganda. She approached her local government office and told them about her business. The division put her in touch with a local radio station that came to visit and aired an advertisement for her business. Damali feels that this advert allowed a lot of people to hear about her business, which is evident in her sales of briquettes which totalled around 70 kg per week.

As the case study above highlights forming links with organisations can open up new sales and promotion avenues for entrepreneurs and they should be encouraged to actively pursue this, visiting local government offices, sending information about their business and giving free samples to local institutions and organisations.

**5.4.9. Attending Exhibitions**

Out of the 37 entrepreneurs interviewed 10 (27%) had attended exhibitions or trade fairs to promote their products (not including DEEP EA networking events) and commented that it was a good way to meet other people within the sector and make sales of their products, often at a higher price. Of these 10 entrepreneurs, 4 were involved in briquette making, 5 were involved in ICS and 1 was involved in solar. The types of exhibitions people had attended included those organised by government departments such as the Ministry of Energy in Tanzania or the Kenya Coconut Development Authority. Others had attended agricultural fairs such as the Nane Nane fair in Tanzania which takes place across the country on the bank holiday in August.

Entrepreneurs that had not attended exhibitions commented that they were often far away or that they could not afford the transport costs or the time away from their business. Two of the entrepreneurs who had attended exhibitions had been sponsored by local organisations to attend alleviating the financial costs which they otherwise may not have afforded. For many entrepreneurs the financial cost of attending shows may not be worth the extra business that can be gained from it.

**Networking through DEEP EA**

Through DEEP EA networking events entrepreneurs are given the opportunity to exhibit and promote their products. These networking events bring together DEEP EA entrepreneurs in the local area as well as other stakeholders such as financial institutions or product suppliers.
There is no financial cost to the entrepreneur to attend the event, as it is organised by GVEP International, and they are able to network with other people in the sector and exchange ideas. These events often include an exhibition which is open to the public, where entrepreneurs can promote their business and make sales of their product.

5.4.10. Price Promotions

Many entrepreneurs did not feel the need to use price promotions to promote their products with only 10 (27%) of 37 entrepreneurs having used this strategy. Where this strategy had been used in 80% of cases it was when the business first started or to attract new customers. Examples of price promotions used included a solar entrepreneur who offered a discount on solar accessories when customers also did the installation thorough him and a solar TV showing business using promotions such as children go free on public holidays to attract customers. Entrepreneurs that didn’t use any price promotions commented that they needed to maintain their profit margin and customers would buy at the standard price.

Within East Africa the culture of bargaining exists. An entrepreneur may start the asking price for their product much higher than the fixed price they need to maintain their profit margin, before reducing down to the final sales price. The process of bargaining and discounts is inherent within the informal sector and strategies such as price promotions can become less defined. There are also cases where entrepreneurs will fix their prices according to the competition and in cohesion with other businesses in the area, for example, one entrepreneur describing the 500 UGX ($0.20) tariff to charge a mobile phone as a fixed price in Uganda.

Case Study

Harrison Kimani runs a battery charging business in Ruiru, Kenya. He recently increased the price of his service from 30 KES ($0.34) to 60 KES ($0.68) a 100% increase, due to increasing electricity costs (as the battery is charged from the national grid). To make this decision he met with his two competitors in the area and they decided on the price together and increased it at the same time.

Instead of undercutting the competition to attract more customers to their business they had formed an alliance to fix the price of the service.

Harrison Kimani at his battery charging business in Ruiru, Kenya
5.5. Consumer Analysis

This chapter discusses some of the results from consumer interviews concerning energy usage and buying habits. As discussed it is important for entrepreneurs to understand their customer’s characteristics when designing their marketing strategies. The profile of the 22 consumers interviewed is given in Table 8 below.

Table 8: Profile of energy consumers interviewed during the field work

<table>
<thead>
<tr>
<th>Country</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number sampled</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Number sampled</td>
<td>10</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Age of household occupant</td>
<td>Under 15</td>
<td>Over 15</td>
<td></td>
</tr>
<tr>
<td>Average size of household</td>
<td>3.2</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Grid connection at home</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Number sampled</td>
<td>7</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

5.5.1. Usage of energy products and services

Cooking

Energy consumers in East Africa rely heavily on biomass as a source of fuel for cooking in their homes as shown in Table 9. Out of the 22 consumers interviewed 16 (73%) used charcoal for cooking and 11 (50%) firewood. Over half of the consumer interviewed used two sources of fuel for their cooking with the most common combination being charcoal and firewood.

Table 9: Cooking fuel usage of energy consumers

<table>
<thead>
<tr>
<th>Cooking Fuel</th>
<th>Percentage of consumer interviewed that used fuel for cooking (N=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal</td>
<td>73%</td>
</tr>
<tr>
<td>Firewood</td>
<td>50%</td>
</tr>
<tr>
<td>Kerosene</td>
<td>13%</td>
</tr>
<tr>
<td>LPG</td>
<td>13%</td>
</tr>
<tr>
<td>Briquettes</td>
<td>5%</td>
</tr>
</tbody>
</table>
Out of the 11 consumers that used firewood for their cooking, 9 collected it themselves. Firewood is a cheap source of cooking fuel and 8 of the 11 consumers that used it had financial reasons for this whilst 3 said availability was also a reason for using firewood. For the 16 consumers using charcoal 15 bought it from a vendor, with 7 stating availability as the reason for using charcoal, followed by financial reasons (6), ability to cook for longer periods (2) and versatility (1) as other reasons for use.

Availability and finances were also the main problems encountered by consumers when purchasing fuels with many consumers speaking about increasing prices of charcoal and the legal problems collecting firewood, which is prohibited in many protected areas. These problems suggest there is a need for alternatives to these traditional fuels, which technologies such as briquettes could fulfil if they can be made available in the right areas and at the right price.

Improved cook stoves (ICS) were being used by 59% (13) of the 22 consumers sampled but the traditional three stone fires were also being used by consumers interviewed as shown in Figure 8.

**Figure 8: Household stove usage of energy consumers**

Many different types of improved cook stoves are available and the prices consumers had paid for their stove ranges from 0.62 USD to 5.18 USD. Nine of the 13 consumers that used ICS said it was because they were more fuel efficient, indicating that consumers are aware of the benefits of using ICS over other traditional stoves. All 7 consumers that used an open fire said it was due to financial reason indicating that the cost of ICS is still a hindrance to some households.

Consumers using open fires for cooking were located in more rural locations whilst many of those using ICS were located in peri urban areas, as well as rural. Entrepreneurs marketing stoves in rural areas, where biomass is freely available, may face challenges because customers see little value in spending money on a stove.
The legal issues around collecting firewood might present a marketing angle in some contexts. Though consumers didn’t mention health issues, research into social marketing approaches for cook stove dissemination suggests that women in rural areas do have concerns about short-term health effects from smoke such as coughs and running eyes.

**Lighting**

For households that were not connected to the grid, kerosene was the most commonly used source of lighting as shown in Figure 9, with households using kerosene lanterns and also tin lamps. Expenditure on kerosene per week ranged from 0.2 USD to 2.84 USD with the average expenditure being 1.27 USD per week. This reliance on kerosene could indicate a need for alternative cleaner lighting sources, a market perhaps for solar lighting. The cost of even small solar lanterns can be around 25 USD. Although this is a considerable up front cost compared to what consumers spend on kerosene, investment in a lantern could pay for itself in around 4-5 months depending on the household’s level of kerosene use.

![Figure 9: Source of lighting in households of consumers interviewed.](image)

**Phone Charging**

For the 15 consumers that were not connected to grid electricity 53% charged their mobile phones at a kiosk in town and 33% at a kiosk in their village. Consumers charged their phones between one to three times a week. There was little variation in the cost of phone charging across the regions with a phone charge costing 0.18 USD on average. These results indicate there is a need for phone charging services across the region but the price of such a service is fairly fixed.

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6Three Key Obstacles to Cookstove Adoption by Xander Slaski and Mark Thurber, Stanford University, published in Cookstoves and Markets: Experiences, Successes and Opportunities, edited by Kavita Rai and Jeveta McDonald, GVEP, 2010.
5.5.2. Consumer Loyalty

Kerosene was the fuel purchased most frequently by 9 of the 22 consumers sampled. This was followed by charcoal (7) and firewood (2). Relatively few consumers displayed loyalty to a particular business with only 8 saying they buy from the same shop. For those that bought from the same shop, 50% said it was due to the price they offered, 25% due to the quality of the product and 25% because they were an acquaintance of the business owner. For those that were not loyal to any business 42% said they buy from wherever it is available, similar 42% said they will buy from whichever business is closest and 13% from wherever it is cheapest.

5.5.3. Product Awareness

During the interview consumers were asked whether they were familiar with certain energy products – namely briquettes, improved cook stoves and solar lanterns. They were also asked what characteristics they associated with them and any barriers that stopped them purchasing the products. The results are summarized in Table 10.

Table 10 shows that all the 22 consumers interviewed were aware of improved cook stoves, 73% were aware of solar lanterns and only 45% were aware of briquettes. These responses differed across the countries visited, for example in Tanzania there are very few DEEP EA entrepreneurs involved in briquettes and correspondingly no consumers asked were aware of this product. However in Uganda where there are a lot of DEEP EA entrepreneurs all but one of the consumers asked were aware of them.

Table 10: Consumer awareness of energy products

<table>
<thead>
<tr>
<th>Energy Product</th>
<th>Product Awareness</th>
<th>Associated characteristics</th>
<th>Barriers to purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briquettes</td>
<td>Yes</td>
<td>• expensive compared to charcoal</td>
<td>• not available in area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• burn longer</td>
<td>• knowledge of how they work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• recycled</td>
<td>• expensive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• don’t produce smoke</td>
<td>• finances to buy cook stove</td>
</tr>
<tr>
<td></td>
<td>45%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved cook stoves</td>
<td>Yes</td>
<td>• stay warm longer</td>
<td>• not available in area</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>• energy saving</td>
<td>• advised against it</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• easy to use</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• safer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• liners break easily</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• can’t cook large amounts of food</td>
<td></td>
</tr>
<tr>
<td>Solar lanterns</td>
<td>Yes</td>
<td>• one off cost to purchase</td>
<td>• finances</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td>• utilise sun light</td>
<td>• not available in area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• safe</td>
<td>• no need, has electricity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• children can use to study</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• save on fuel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• expensive</td>
<td></td>
</tr>
</tbody>
</table>
Many consumers are aware of the benefits of the energy products in question. However conflicting characteristics were often given by different consumers, particularly about the price of such products. This highlights the need for clear and reliable information about these energy products to reach consumers. For all these energy products, finances and availability were again the main barriers stopping consumer purchasing these products. This reinforces the challenge identified by entrepreneurs concerning distribution channels - especially within rural communities - to make these products more available to consumers.
6. Lessons Learnt

The following observations have been contributed by DEEP EA’s mobilization partners that work closely with entrepreneurs on the ground and help provide marketing support. They act as lessons learnt concerning the current marketing approach undertaken by entrepreneurs and factors that affect their marketing capacity.

Current marketing approaches undertaken by energy entrepreneurs

- There is a general tendency by most small scale energy entrepreneurs to assume that customers will come and buy energy products from them even if they do not actively look for customers or engage in product promotion. Many entrepreneurs, especially in improved cook stoves, produce and mainly sell from the production centres. Most stove producers make efforts to put signposts at their production centres and display their products either outside or by the roadside. However they also rely a lot on word of mouth and repeat customers.

- Market demonstrations are a common approach used by small scale energy entrepreneurs to market their products, mainly targeting different market centres during market days. Where entrepreneurs include live demonstrations, they are able to capture attention, attract customers and increase sales.

- Some entrepreneurs market their products by giving samples to friends or relatives living in different places, to use and inform other households about the products. Some will go as far as making these households into “demonstration households” for any customers interested in seeing the products in use before deciding to buy.

- Energy entrepreneurs have been known to target Women’s Group meetings to market their products. This will usually result in increased sales if the group members are convinced that the products are good because the members can make contributions to buy the products until they have all acquired the energy item.

- A number of entrepreneurs capitalize on events such as local, district or national agricultural shows to create awareness about their products. These shows are well attended and help to make useful contacts for future sales.

- Some entrepreneurs are much more proactive than others in utilising events as opportunities to display their energy products (workshops, seminars, conferences). They are able to make contacts with clients who would be buying the energy products for dissemination to their project beneficiaries (e.g. NGO’s and other development agencies).
Factors that affect entrepreneurs marketing approach

• The majority of small scale energy entrepreneurs operate their enterprises on a part time basis. They do not consider their businesses as full time employment which may explain why they do not devote a lot of time and resources in marketing their products.

• Lack of awareness of the potential that energy businesses have to generate income to meet family needs may also impact on the marketing approaches adopted.

• Entrepreneurs do not realize that they need to market their products in order to achieve business growth.

• There is often a lack of marketing skills which is a major barrier to effective marketing. Lack of resources such as promotional materials and finances to participate in certain marketing forums such as agricultural shows is also a challenge.

• Entrepreneurs often target the same customers with similar products. Poor pricing i.e. under-pricing / overpricing, also makes it difficult to compete favourably in the market.

• Entrepreneurs also face competition from sub-standard goods that are under-priced.
Marketing is a key component in creating growth in micro and small energy businesses and entrepreneurs should put more emphasis on this activity. The majority of challenges and goals for business growth identified by entrepreneurs are marketing related.

The marketing issues that these entrepreneurs face are different for the different energy technologies. However all entrepreneurs need to have a clearer sense of their target customers and understanding of what motivates them to buy.

Many entrepreneurs rely on local households as their main source of customers and face a lot of competition within the local area. They may feel limited in the markets they can access by their business location, available stock and finances. To overcome this, entrepreneurs could look for smaller orders whilst they build up their working capital or arrange for an advance on payment to help service large order. Entrepreneurs should focus on forming links with new markets in their marketing activities and efforts should not be restrict to the local area. Enterprises should clearly sign their business premises so they are identifiable to take advantage of passing trade.

Customer loyalty is low within the energy market in East Africa, with customers tending to buy from whichever business is closest or has the product available. However entrepreneurs are engaging in a range of promotional techniques for their business, with word of mouth a widely used tool. Advertising opportunities may arise from contacts within local organisations and government departments and material provided by product suppliers or organisations such as DEEP EA.

Many entrepreneurs perceive lack of finance as a hindrance to their marketing and business growth yet there is a lot which can be done with quality, price, placement and promotion within existing business resources. Entrepreneurs should consider the finances they need for marketing activities and account for these in their budgets.

**Technology Specific**

The following conclusions can be drawn around specific energy technologies;

**Phone and battery charging**

For entrepreneurs involved in phone and battery charging the price of the service is fairly fixed with little variation. For these businesses location is key and entrepreneurs need to be located within 5 km of their customers. Such businesses are easy to start up requiring no specialist skills and fairly cheap equipment and as a result a lot of competition exists. Lack of adequate equipment can often be a major challenge for such businesses to expand and the main reason entrepreneurs want to secure financing. Many entrepreneurs rely on word of mouth to promote their businesses and the fact that people in the community know they exist.
Entrepreneurs involved in this technology need to publicise the availability of the service beyond their shop through use of signboards, leaflets, and announcements and target any nearby communities where this service is not available.

**Solar Lanterns**

For entrepreneurs involved in the selling of solar lanterns product quality is very important since they rely heavily on customer referrals to increase their market. The price of the product is also critical. Solar lanterns often represent a significant upfront cost for consumers and entrepreneurs need to be able to show to them the long term cost savings from purchasing this technology. Possible revenue could also be gained through the leasing of lanterns to those customers who cannot afford the upfront cost.

Entrepreneurs need to be supported so they have access to cheaper products which they can test with potential customers. Placement of the product is a challenge since customers tend to be dispersed over a large geographical area. To reduce on travelling entrepreneurs could employ local sales representatives on a commission basis, depending on the volume of business they have. Solar lantern entrepreneurs would also benefit from advertising their business and contacts through local networks including organisations and local governmental departments and local media.

**Stocking and installation of solar PV home systems**

Similarly to entrepreneurs involved in the selling of solar lanterns, the quality and price of the solar PV system is critical. Many substandard products exist within the market and the price of systems can vary significantly. Entrepreneurs need to be able to explain the benefits of solar home systems to customers in terms of monetary savings to justify the high costs.

The high cost of the system is also a challenge to entrepreneurs wanting to expand their stock and makes it hard for them to afford a demonstration system to use for promotional and advertising purposes. The majority of solar PV entrepreneurs perceive their customers to be male. Strategies could be employed to attract more female customers by working to remove barriers such as technology awareness and access to finance.

**Improved Cook Stoves**

The improved cook stove (ICS) sector is quite complex with many different business models in existence - some businesses sell direct to the consumer, some sell to stockists, some businesses manufacture only one component of the stove and others assemble the different parts. There are also several types of cook stoves being sold, for example the Kenyan Ceramic Jiko, the Kuni Mbili stove and clay stoves. The marketing strategy adopted will differ according to the business model being used.
Differences also exist between entrepreneurs who are selling stoves to consumers who buy wood or charcoal to burn, and those that live in areas where biomass is freely available and people use the traditional three stone fire. For urban markets where wood and charcoal are purchased the promotional message should probably focus on ‘save money’ and ‘use less fuel’.

In areas where biomass is freely available the message should probably focus on ‘save time’ and ‘less smoke’. In the latter context sales may be difficult since price is a clear barrier. Pushing messages about serious long term health impacts from inhaling smoke (lung and heart disease) is unlikely to make much impact, according to research carried out by others.

A focus on short-term discomforts such as sore eyes and coughs may engage customers interest. In these areas entrepreneurs may benefit from linking with church groups, CBO’s and local government to help promote the benefits of stoves. Issues of the legality surrounding firewood collection may be another concern which could be exploited.

In general the quality of the product will be critical as well as the price. The product placement depends on whether the business is selling direct to the consumer or to stockists or wholesale buyers. If the business is selling direct to the consumer the product needs to be convenient, for example selling in the market place or on major routes in and out of trading areas. Where businesses are selling to assemblers or wholesales buyers, entrepreneurs should supply them with samples and actively seek new markets through promotion and visiting potential customers. Branding of cook stoves, even with a simple mark, can help distinguish the entrepreneur’s product from the competitor’s and those of lower quality. Branding stoves with labels giving the contact details of the entrepreneur will also help advertise the business.

Competition amongst cook stove business is high with entrepreneurs often operating in groups or close to similar businesses. Distribution is also a major challenge to entrepreneurs increasing their customer reach and can represent additional operational costs.

**Briquettes**

For briquette businesses the quality of the product is very important; much variation can exist between producers and the briquettes must burn well to establish a consistent customer base. Price is also a critical factor. Briquettes are in competition with more traditional fuel sources such as firewood and charcoal and must be shown to have cost savings benefits over them. Although briquettes are more expensive than charcoal per kg at the point of purchase, they burn longer than charcoal and hence less are required. Mechanisms that reduce the price of the briquettes will help tackle this, including the use of equipment in the production process.

For briquette entrepreneurs selling direct to the consumer, placement is key and they must ensure the product is readily available and as convenient to purchase as wood and charcoal. Many entrepreneurs rely on local households and sales agents within local markets could help with product placement. Hotels, schools and restaurants represent potential customers that will purchase in large quantity and many entrepreneurs have identified these as the target market for their product.
For these customers, entrepreneurs need to make direct approaches and provide them with free samples and demonstrations. Packaging and branding with the contact details of the entrepreneur can be used to help distinguish their product and make it more attractive.

Briquettes are an unfamiliar product and there is a lack of awareness about their qualities and benefits as well as reluctance by some consumers to switch from traditional cooking methods. Promotion through community networks, radio and product demonstrations can help increase product awareness.

**Gender Considerations**

The role of men and women in purchasing decisions is also critical. Traditional male and female roles within the household can influence the gender of customer for a particular business with solar entrepreneurs attracting more male customers and ICS attracting more female. Men are often considered as being more involved when spending large amounts of money in the household. For example with ICS and solar products the sales promotions need to target not just the women who may use the product but also men that will be interested in saving money in the household. Technology awareness and access to finance may also vary between male and female customers.
ANNEX 1

Further information on DEEP EA

Project Objectives and Targets

Overall objectives: To increase the availability of sustainable, affordable and appropriate energy services to those unserved or underserved in rural and peri-urban areas of Kenya, Tanzania and Uganda.

Specific objective: To enable the development of a sustainable and widespread industry of micro and small energy enterprises providing energy services and employment

Project Targets

<table>
<thead>
<tr>
<th>DEEP EA Targets:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1800 energy enterprises started up, diversifying or expanding in providing energy services</td>
</tr>
<tr>
<td>• 300 business mentors trained and qualified in the project</td>
</tr>
</tbody>
</table>

Final beneficiaries:

• 1.8 million people accessing energy products and services from supported enterprises
• 1300 households receiving income from employment in supported energy enterprises
• 1300 households receiving incomes from employment in enterprises enabled by energy services provided by supported energy enterprises

Working in Partnership

GVEP International is the lead co-ordinator of the DEEP EA programme working in close collaboration with the following partner Organisations:

i. The Aga Khan Foundations’ Coastal Rural Support Project, Kenya (CRSPK): The CRSPK has been active in the Coast Province of Kenya since 1997 as an integrated rural development project. Initially focused primarily on ensuring food security in target communities, it introduced a new focus on business development in 2002 mainly around agri-business potentials, including honey and aloe production. DEEP-EA builds upon CRSPK’s enterprise development component by introducing a new focus on energy businesses in the coastal region of Kenya.

ii. IT Power East Africa: The Company has been working for an extended period on development of frameworks and specific tools for supporting MSEs in the energy sector. IT Power East Africa provides technical advisory services as it is understood that technical knowledge and information is vital to the success of businesses and energy delivery services.
iii. Practical Action East Africa is the East Africa office of the International Development NGO Practical Action (formerly ITDG), a pioneer in the rural energy sector in the region since the 1980’s. PA-EA has long standing experience in assisting communities in developing rural energy businesses and services. DEEP-EA will build on this experience and hands-on track record in bringing this approach to more communities, more widely in East Africa.

iv. The East African Energy Technology Development Network (EAETDN) has registration and members in all the three target countries (Tanzania, Uganda and Kenya) and comprises of private sector, individuals and grassroots energy NGOs. With it’s origins in a project with Practical Action East Africa (then ITDG) and established formally in 1998, EAETDN focuses on disseminating approaches and energy technologies through grassroots partners which are the enterprises which DEEP-EA seeks to support. EAETDN is involved in Uganda and Tanzania.

Work Package and Activities

The DEEP EA Programme is divided into 5 distinct Work Packages and work has been undertaken over the past years as follows.

• **Work Package 1 - Inception:** Designed to structure the consortium and further develop methodology including tools, methods and detailed activities. Various stakeholders in the energy and enterprise sector were met and steps taken to collaborate with them in the project.

• **Work Package 2 - Community Mobilisation and Marketing (Reformulated in 2010 as Entrepreneur Development and Market Development Support):** In this WP, existing community-based DEEP-EA partner staffs (Practical Action, CRSPK, and EAETDN) lead awareness raising, marketing, mobilisation and facilitation processes to both stimulate the market for energy services and highlight local needs, market opportunities and business ideas which could be incubated in the area of energy services. In 2010, it was decided that trained entrepreneurs also needed more market development support to scale their businesses.

• **Work Package 3 – Business and Technical Assistance:** This WP was designed to provide business development assistance particularly in the areas of business planning and processes, sales and marketing, organisation, and basic accounting needed by start-ups and diversifying enterprises. In addition, provide technical advice and support on the energy products and services being developed, adapted or imported according to the identified needs and market opportunities. A key tool in this support is the use of a team of business mentors providing one-to-one support to entrepreneurs. These mentors are trained and qualified by the project to ensure maximum penetration and dissemination of the energy products and services. Business mentoring and training are also complemented by group networking and information sharing sessions encouraging peer-
to-peer shared learning. This support will be provided in the start-up, survival and growth phases.

- **Work Package 4** – Due Diligence and Finance Application: This WP was designed to assist the DEEP EA entrepreneurs to prepare proposals for small scale financing. The project carries out technical and business due diligence on the business plans before forwarding the proposals to financers.

- **Work Package 5** – Monitoring, Evaluation and Scale-up: An M&E framework is developed for both the project and supported enterprises to provide a complete understanding of project outcomes and to further assist in identifying and recommending successful enterprises to other initiatives for further support to scale up.

Work Packages 2, 3 and 4 inter phase with each other. The enterprise mobilization team works closely with the Business Development and Technical teams.
Annex 2

Market Development Support Process

Staff Involved:

Mobilization Partners – The mobilization partners in each region conduct the market needs assessment and provide the subsequent market development support to entrepreneurs.

Flow Chart:

During BDS and energy technology training mobilizers discuss with entrepreneurs their current marketing approach and marketing issues they have. This information is compiled into a spreadsheet which is sent to the Programme Manager at the end of each quarter.

Mobilizers identify entrepreneurs that will benefit from further post training market development support.

Mobilizers contact the entrepreneur to arrange further post training marketing support.

Market Development activities that take place include the following;

- Product awareness – promoting products in the local community. This can be done through exhibitions or travelling around community giving out samples.
- Networking for product improvement – having groups with high quality products mentor groups with poorer products.
- One on one session with entrepreneurs to engage them in sustainable marketing solutions.
- Forming links between entrepreneurs and medium scale businesses or potential buyers to open up new markets.
- Improving the quality of the product through technical advice for example providing technical drawings of briquette machinery.
- Providing advice on policy and advocacy. This may include lobbying local council for better policy that will benefit an entrepreneur’s business, for example helping an entrepreneur obtain land from the council to build a production centre.
- Linking entrepreneurs to local MFI either for financial assistance or supplying them with products.

Summary of support given is compiled in a spreadsheet and sent to the Programme Manager at the end of each quarter.
**Notes:**

- Market development support looks at all aspects of running a business and can be any activity that is supporting the business and helping it to grow from a marketing perspective. The process is two way; the mobilisation team may contact the entrepreneur to offer them support and the entrepreneur may contact the mobilisation team for support and advice.

- Market development support is normally done face to face either on a one to one or group basis. However it can also be done over the phone, for example, informing entrepreneurs of forthcoming exhibitions at which they could promote their products.
ANNEX 3

Survey Methodology

Data Source

The quantitative data for this study was collected from 37 DEEP EA entrepreneurs during face to face interviews. The interviews took place in Coastal Region, Kenya on 7th – 11th February 2011, Mwanza Region, Tanzania 21st -26th February 2011 and Central and Western Region, Uganda 4th – 8th April 2011.

Questionnaire topics

The questionnaire for energy entrepreneurs covered the following topics;

1. About yourself and your business
   - Gender
   - Age
   - Type of energy business
   - Location of business
   - Year of business establishment
   - Previous job
   - Motivation to start business
   - Barriers to starting business
   - Number of employees

2. Your sales and customers
   - Average sales
   - Gender of customers
   - Reasons for customer characteristics
   - Customer reach
   - Different markets identified
   - Target market
   - Market research
   - Product awareness

3. Your products and services
   - Selling points
   - Product impact
   - Customer benefits
   - Quality
   - Competition
   - Product guarantee
   - Branding

4. Your prices
   - Pricing & Costing
   - Price discounts
   - Credit

5. Your product / service placement
   - Sourcing
   - Selling locations
   - Displays
   - Distribution

6. Promoting your products / services
   - Promotion techniques
   - Targeted promotion
   - Promotion effectiveness

7. Your business
   - Management
   - View of success
   - Registration
   - Income generated
   - Use of profits

8. Your finances
   - To start business
   - Loans taken
   - Loan usage
   - Future loans

9. Marketing support from DEEP EA
   - MDS
   - Mentoring
   - Group networking

10. Challenges and Opportunities
    - Business challenges
    - Marketing challenges
    - Business growth
    - Plans for growth
The questionnaire for energy consumers covered the following topics:

1. **Consumer data** – this included size of households and whether the consumer has access to grid electricity at their home.
2. **Fuel** – consumers were asked about the fuels they use for cooking at their home.
3. **Stoves** – consumers were asked about the stoves they use for cooking at their home.
4. **Lighting** – consumer were asked about the source of light in their home.
5. **Mobile phone** – consumer were asked where they charge their mobile phone.
6. **Other Energy Requirements**
7. **Buying Habits** – consumers were asked why they buy from a particular shop
8. **Buying Factors** – consumers were asked what factors are important when they buy energy products.
9. **Product Association** – consumer were asked about the words they associate with given energy products.

**Sampling**

The following charts show the profile of the 37 energy entrepreneurs sampled.

![Pie charts showing country and gender distribution]

![Bar charts showing age and technology distribution]

Sample Frame, N = 37 entrepreneurs
The data was recorded by hand in the field during the interviews. Completed questionnaires were then coded into a database from which statistical data was extracted. In some cases the DEEP EA monitoring and evaluation (M&E) database was used to cross check responses and fill in missing information.
Summary of InterMedia survey

In 2009 AudienceScapes, a not-for-profit research institution, conducted research in Kenya analyzing the media use and communication habits of a nationally representative sample of Kenyans.

The survey, which sampled a total of 2000 Kenyan adults, aimed at bridging knowledge gaps about media preferences, personal communication habits, and the use of information and communication technologies (ICTs) in Africa and other developing regions. The ensuing report drew several conclusions on media use in Kenya, which is of interest when considering media as a form of advertising in rural and peri-urban areas.

The report noted the following findings:

- Radio remains the most widely available media source, reaching directly into more than 85 percent of Kenyan adults’ homes.
- Less than half of all adults said they can watch TV in their homes, and only a tiny minority of Kenyans have access to computers. Of those who said they do not watch TV, 65 percent were female and 87 percent were rural.
- Rural dwellers have significantly lower access than urban dwellers to most media and ICT platforms.
- Word-of-mouth sources (usually defined in the survey as either “friends and family” or “other people in the community”) are roughly as important to survey respondents as radio and television for staying informed.
- While speaking and understanding Kiswahili is quite common, only 59% of rural respondents said they can speak and understand English, compared to 80% of those in urban areas.
- 37% of respondents said they had not read a newspaper within the last year. About one quarter of non-readers said they are simply not interested in getting news and information from print media.

In terms of marketing strategies and use of media for marketing, these findings suggest the following:

- Radio advertising can reach large audiences, being the most widely available media source in Kenya, reaching more people than TV and printed media. An entrepreneur in peri-urban and rural areas looking to use media for advertising should consider using radio as a way to reach a large audience.
- TV advertising may reach less people than radio since less people have a TV in their home compared to a radio. This is particularly true of women in rural areas and if this is the target market for a product TV advertising may not be effective.

• The findings of the survey reiterate the importance of word of mouth communication as a source of information. Such sources can be as important as radio and TV as sources of information particularly in rural areas and amongst women. Marketing strategies aimed at women in rural areas should utilise promotion through word of mouth as a source of product information.

• Using local languages instead of English in advertising material and product information is important in rural areas since many residents may not understand English.

The full report can be found at:

http://www.intermedia.org/brochures/AudienceScapes_Kenya%20Quant.pdf
Summary of Stovetec distribution and marketing strategy

In 2009 German Technical Cooperation agency (GTZ) and Restio Energy worked together to develop a marketing and distribution strategy for the StoveTec improved cook stove in an attempt to introduce the stove into the rural markets in South Africa. The marketing strategy that focused on more rural off grid areas of the country employed the following marketing activities;

- Promotional posters
- Flyers
- Educational brochures
- Stove user manual
- Radio and newspaper advertising
- Energy stores
- Sales agents
- Promotional pricing

Deployment of the initial phase of this strategy produced the following observations;

- During initial product awareness sessions and demonstrations sales may be low since people have not budgeted to buy the stove on that day. After the product awareness people will start to budget for these items and subsequent visits may return more sales.
- Consideration needs to be taken to time and resources required by a marketing activity compared to the impact on sales.
- The use of sales agents is a low resource marketing activity which can result in the pioneering of new markets and yield sales.
- Educational visits to schools were high effort but yielded little sales as many of the school children were not interested in the product and did not pass information onto their parents.

The full article can be found at:

http://www.hedon.info/View+Article?itemId=10197 (accessed 21/06/2011)

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This report summarises findings from a study undertaken by GVEP International (Global Village Energy Partnership) under its Developing Energy Enterprise Project East Africa (DEEP EA) implemented in Kenya, Uganda and Tanzania. It reviews the current marketing strategies being employed by energy micro and small enterprises (MSEs) and the marketing challenges they face.

The study also looks in depth at how marketing theories are being applied on the ground for specific DEEP EA supported technologies and provides recommendations on how entrepreneurs can improve their marketing activities.

The report is produced to create an increase in knowledge base for energy practitioners working with MSEs in Africa.