ENERGY
CATALYST

Theme Guide: Value Proposition & Customer Segmentation

June 2020

UKRI Innovate UK

UKaid from the British people

Theme Guide: Value proposition and customer segmentation

This Theme Guide attempts to explain the concepts of segmenting your customers and developing a value proposition.

The markets in Sub-Saharan Africa and South Asia are enormous, and it is impossible for a small company to try and reach all of them. These techniques help focus how to select which customers to focus on and what messages are likely to persuade them to buy your product or service.

What is a value proposition?

A value proposition is a promise of value to be delivered, communicated, and acknowledged. It is also a belief from the customer about how value will be delivered, experienced and acquired. It differs from a company's business objective as it represents the key value that your customers derive from your company's product or service, not your core objective itself.

What is customer segmentation?

Customer segmentation is the process of breaking down the market into small parts in order to be better able to target your product or services. This is particularly important when working in niche markets and with limited resources.

Why segment customers?

The market of customers within Sub-Saharan Africa and Southeast Asia for new products and services powered by renewable energy is very large and varied.

For products like solar lanterns and solar home systems, the market is reasonably developed, but for other more specific products, such as solar water pumping, the market is still nascent and developing.

Companies need to split their market into different groups or segments to make their products and services offers appropriate to their potential market segment. Different types and sizes of products at different price points, payment plans and service packages appeal to different customers.

How can you segment customers?

One way of segmenting customers is through considering the level of energy that a customer needs. The ESMAP Service tiers provides this useful framework:

Table 1 ESMAP service tiers						
Service Tier	Tier 0	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Peak power available	None	3-50W	50-200W	200-800W	800-2,000W	P >2,000W
Allowable daily energy consumption	None	12-200Wh	200-1,000Wh	1,000-3,400Wh	3,400-8200Wh	>8,200Wh
Duration of supply	None	> 4hrs	> 4hrs	> 8hrs	> 16hrs	> 23hrs
Evening supply	N/A	>1hrs	>2hrs	> 3hrs	>4hrs	>4hrs
Reliability	N/A	>85%	>90%	>95%	>97%	
Typical applications	Lighting with traditional fuels	Lighting of 1,000 lumen-hours/day, phone charging	General lighting, fans, TV, light office needs	Tier 2+ food processing, task-oriented food preparation	Tier 3+ Refrigerators, pumps, expanded food preparation	Tier 4+ Air conditioning, light industrial, commercial food preparation

Other ways to segment customers are:

Rural and urban customers usually have quite different needs, so the products and services they need are quite different. In the context of energy, urban customers may be connected to a poorly run grid, so can use energy products as a back-up. Rural customers, much less likely to be connected to the grid, may well need these products as their only source of energy.

Income: reliability and level of income is one way of segmenting customers. Many energy products are too expensive to buy in cash and customers need to pay for them over a period time. Identifying which potential customers can repay is important to avoid defaults.

Domestic vs business use: another way of segmenting customers is whether the product will be used for business or domestic use. The decision-making process for each purchase will generally be quite different. For a business, for example, a decision may be made based on how much money can be made; for a household, the decision could be “what is more comfortable?”, or “is this cheaper than what I was using before?”.

However, business and household uses often merge in developing markets, with many businesses being run out of the household, such as cooking meals or doughnuts on the side of the road, or making and mending clothes. The product may, therefore, be used for more than one purpose. Similarly, most rural households also own the land on which they farm and, whilst not always run like a business, this represents a large part of their annual income.

Many rural households have variable incomes. Typically, they will have one major crop harvest a year and then may benefit from a “short” season depending on their location. They may also be involved in small scale irrigation. This means that their income is not received evenly throughout the year.

Understanding customer types

Willingness and ability to pay

All customers have a variety of demands on their budgets. Their willingness and ability to pay depend on certain factors.

- Customers' willingness to pay is often based on benchmark values of what the customer paid for energy (e.g. diesel motor) or what he heard that on-grid customers are paying.
- In areas where there have been no prior energy products available, the price of kerosene for lighting, wood or charcoal for cooking, and mobile phone charging costs can be used to determine the willingness to pay.
- Customers' ability to pay is often about liquidity. How much does the customer have in their pocket or how much can be raised?
- Payment structures such as Pay-As-You-Go (PAYG) or loans for equipment can help customers align the payment schedule with their ability to pay.

Business customers also want to understand how they can profit more through the purchase of your product or service. You will need to demonstrate how your product will produce a positive Return on Investment (ROI).

Why do you need a value proposition?

The value proposition is the single reason why your customer decides to buy your product. 60 Decibel, a leading company working in the area, asked customer why they bought their product and what positive change they have seen.

Table 2 Example of payment plans

Pay as you Go - Purchase	Customers normally pay 10 or 20% of the product price and then pay daily or weekly payments, often via mobile money. If the regular payments are less than current energy costs, the household can see that in time they will save money.
Energy as a service	Customers normally pay a smaller deposit and then pay, generally in advance, per unit of energy consumed. Again, if the regular payments are less than current energy costs, the household can see that in time, they will save money.
Payments reflecting customers' fluctuating income	Many customers have incomes that vary throughout the year. Payment plans can reflect when customers have money, such as at harvest time. So farmers feel more comfortable paying once or twice a year based on crops.

Product Type	Top Positive Change	2nd Positive Change	3rd Positive Change
Solar Lanterns	Access to (better) lighting	Reduced energy expenditure	Reliability
Solar Home Systems	Access to (better) lighting	Health improvements	Reduced energy expenditure
Mini-Grids	Access to (better) lighting	Reliability	Access to appliances e.g. radio, TV
Solar TVs	Families are better informed	Improvements to family connectedness	Ease & convenience of having a TV at home
Off-Grid Refrigerators	Increased income	Health improvements	Increased productivity e.g. sales
Solar Water Pumps	Reduced agricultural input expenditure	Increased income	Greater resilience
Clean Cooking	Reduced fuel consumption	Time savings	Health and well-being improvements

Figure 1. Why customers bought their product and the positive change, Source: 60 Decibels, 2020.

Examples of cost/benefit analysis:

Household Customers

This solar light means I don't have to buy kerosene and candles anymore, or go to my neighbour to charge my phone. It costs $20 and I spend 20 cents a day on kerosene and charging. After 100 days I will be saving money on my purchase

Farming Customers

A farmer doesn't currently irrigate a two-acre plot of land. If she purchases a solar water pump for $500, how much profit can she make each year? A profit can be calculated by estimating the income from the two acres and subtracting the costs of all inputs: labour, seeds, crop protection, transport.

This solar pump means that I will be able to get two crop harvests a year. And it will safeguard against drought problems throughout the year. It costs $500 and after costs I get an extra $300 a year. In under two years, I will have paid it off.

Developing a value proposition

In order to build a value proposition, you need to be able to explain the benefits of your product or service to the customer. This means gathering reliable data about the benefits of your product or service. These benefits can be broken down as follows:

Table 3 Developing a value proposition	
Problem	What problem does your product or service solve?
Economic Benefits	What financial benefit does your customer derive from your product or service? Reduced costs? Increased incomes?
Emotional Benefits	What emotional or comfort benefits do your customers derive from your product or service? More hours to study? Less smoky environment?
Competitive Advantage	What does your product or service do better that your competitors?

Pricing, payment methods and terms

Part of the value proposition is understanding how your customer will pay you. Most products are cannot be bought in cash, so the terms on which you sell your product are critical. The factors that you need to consider are:

- **Deposit**: what amount of initial deposit (if any) can you ask from your customers? This will depend on the value of your product and the amount that your customers can afford.
- **Weekly/monthly repayments**: what repayment schedule makes it easy for your customers to pay comfortably? This will depend largely on their frequency and level of income
- **Length of credit**: the length of credit will generally be dictated by the monthly/weekly payments that your customers can afford.

Reviewing and updating your value proposition

It is important that you revise your value proposition to reflect both changes in your product and changes in the desires of the target markets. Gathering good data on your current customers will also help guide future strategy. For example, if an SHS company is successful in a certain area and customers have been using their product for a while, it may consider selling new products, such as appliances, to the same customers. Furthermore, if the grid arrives in an area, that may change the value proposition or change the target market.

Example of a value proposition from an SHS company

A BBOXX customer is typically located in a rural off-grid area. Most earn their living by farming coffee, bananas or other fruit and vegetables on small plots of 1-2 acres. Some, especially around lakes and in coastal areas, are fishermen, and others are moto drivers or small business owners.

Some customers in Kenya and Rwanda earn around US $100 per month and spend $6-12 on energy expenditure, such as purchasing candles, kerosene, batteries for torches and charging their phones. **Note:** Many rural customers cannot afford to spend $6-12 on energy expenditure.

BBOXX prices its solar home systems to match these existing energy costs, spreading payments over time to widen its customer base, enabling various segments of the population to purchase clean renewable solar energy.

Customers save money and have more access capital to pay for school fees etc. They also have fewer health problems due to unclean fuel use, and children can study better during the dark hours.

References and further reading

60 Decibel report: " why off grid matters"
https://www.60decibels.com/energy-report

Pricing Quality cost drivers and value add in the off-grid solar, GOGLA
https://www.gogla.org/sites/default/files/resource_docs/pricing_quality.pdf

Rajasthan Customer Segmentation Study – Global Alliance for Clean Cookstoves
https://www.cleancookingalliance.org/resources/467.html

Market Research on Productive Use Leveraging Solar Energy (PULSE)
https://www.esmap.org/market-research-on-productive-use-leveraging-solar-energy-%28

IEA, World Energy Outlook-2019 & MKOPA Labs Lessons Learned.Off-Grid Solar Market Trends Report 2020
https://www.worldbank.org/en/topic/energy/publication/off-grid-solar-market-trends-report-2020

Useful contacts

Efficiency for Access Coalition
https://efficiencyforaccess.org/
info@efficiencyforaccess.org

GOGLA
Arthur van Schendelstraat 500A
3511 MH Utrecht
The Netherlands
+31 304 100 914
https://www.gogla.org

60 Decibel
Somerset House, New Wing
Strand, London WC2R 1LA
United Kingdom
london@60decibels.com
https://www.60decibels.com

SEforALL
Andromeda Tower 15th floor
Donau City Strasse 6
1220, Vienna
Austria
+43 676 846 727 200
Info@SEforALL.org
https://www.seforall.org

Alliance for Rural Electrification
Global Energy tracker
https://www.ruralelec.org/rural-electrification

ESMAP
The World Bank
1818 H Street, NW
Washington DC 20433
USA
https://www.esmap.org/

Energy 4 Impact
Suite 9, 3rd floor
32 Bedford Row
London
United Kingdom
http://www.energy4impact.org

Please contact your Client Relationship Manager if you want help with introductions to specific individuals within these institutions.