ValueLinks Module 5

Business models

Structure of ValueLinks 2.0

1. Setting boundaries
   - Scope of value chain development

2. Value chain analysis and strategy
   - Value chain analysis
   - Value chain strategies
   - Programs and projects

3. Value chain solutions
   - Business models
   - Value chain financing

4. Information management
   - Managing data & monitoring

   Solutions for value chain development
Business models

Contents

1. Business model canvas and financial analysis
2. Case example: Attiéké production in Burkina

The business model concept

Business models and the value chain

- Every enterprise has a business model, either implicitly or explicitly.
- The value chain as a whole can be divided into specific types of VC actors with similar business models.

Definition: A business model is...

…a specific combination of product/markets, internal operations & technology, supply and marketing links that an enterprise uses to succeed and grow (“the rationale of how an individual firm creates, captures and delivers value”)


### How can we use the business model approach?

- Help improving existing business models, particularly for small and medium enterprises
- Generate new ideas, develop a business case for new business models to create jobs and market access
- Introduce technical innovations based on a holistic economic assessment
- Support the replication of improved business models
- Verify that solutions suggested for VC development (such as linkages, service provision, financing) are financially attractive
- Communicate the idea to financial partners to raise funds

### Describing a business model

#### The complete business model canvas format

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Value Propositions</th>
<th>Customer Relationships</th>
<th>Customer Segments</th>
<th>Key Resources</th>
<th>Channels</th>
<th>Cost Structure</th>
<th>Revenue Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key partners?</td>
<td>Key activities do value propositions, relationships, distribution channels, revenue streams require?</td>
<td>What value do we deliver? Which of our customer’s problems are we helping to solve? What bundles of products and services are offered? Which customer needs are we satisfying?</td>
<td>Types of relationships with each customer? Are they integrated with the business model? How costly are they?</td>
<td>For whom are we creating value? Who are the most important customers?</td>
<td>What key resources do value propositions, relationships, distribution channels, revenue streams require?</td>
<td>Through which channels are customers reached? Are channels integrated? Which ones work best? Are most cost-efficient?</td>
<td>What are the most important costs inherent in the business model? Which key resources are most expensive? Which key activities are most expensive?</td>
<td>For what value are customers willing to pay? For what do they currently pay? How much does each revenue stream contribute to overall revenues?</td>
</tr>
</tbody>
</table>
Business models are connected by linkages

**Connected business model**
In which the business linkage between a supplier and a buyer is part of both business models

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**Internal coherence of the business model canvas**
- Business model canvas is complete with realistic statements
- Elements of the canvas fit and support each other

**Financial viability**
- Financial viability is key: Financial projections show that the business is likely to make money
- Financing of investments assured

**Actual availability of business partners and services**
- Sufficient supplies of raw material, inputs and equipment and of services (training, maintenance) are available
- Buyers / clients can be named
Criteria to evaluate the quality of a business model

**Social benefits**
- Poor entrepreneurs can use the business model
- Number of quality jobs created
- Fair employment conditions for workers

**Environmental benefits**
- Improved resource efficiency - water, energy and material inputs
- No additional emissions and waste generated

**Development benefits**
- Number of enterprises that can adopt the business model
- Multiplication effects: Role of the business model in the value chain for improving business opportunities for other companies, especially for micro and small enterprises

Financial analysis of business models

**Three levels of business model analysis**

1. **Level: Business model canvas**
   - Business model analysis including some financial and technical parameters (technology, cost, prices, marketing) and main criteria to judge whether the business model may seem viable in general

2. **Level: Excel sheet**
   - Detailed profitability analysis, break-even calculation
   - Analysis of the most important parameters of the business model (e.g.: capacity utilization)

3. **Level: Full investment calculation**
   - Can rarely be done externally by projects, responsibility of the entrepreneur himself
Business models

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1 Business model canvas and financial analysis
2 Case example: Attiéqué production in Burkina
Value chain and business models

Cassava production → Cassava paste import → Milling → Atiéké making → Trade

- Small growers
  - Key Partners: Suppliers of cassava
  - Key Activities: Acquire cassava, mill cassava manually, make atiéké, package atiéké
  - Key Resources: 2 small buildings, small equipment (pans, pots, …)
  - Value Propositions: Packaged atiéké
  - Customer Relationships: Regular, repeated sales
  - Customer Segments: Domestic markets, both urban and rural

Atiéké producers

Manual millers and atiéké producers

Mechanized millers and atiéké producers

Traders

Retailers

Importers

Business model canvas analysis

Canvas of manual miller & atiéké producer

- Cost Structure: Low fixed cost, variable cost is cassava and labor
- Revenue Streams: Revenue from sales of atiéké
Business model canvas analysis

**Canvas of mechanized miller & attiéké producer**

**Key Partners**
- Suppliers of cassava
- Suppliers of milling equipment
- Technical service providers

**Key Activities**
- Acquire cassava
- Mill cassava mechanically
- Make attiéké
- Package attiéké

**Key Resources**
- Mechanical mill
- 3 small buildings
- Small equipment (pans, pots, …)

**Value Propositions**
- Packaged attiéké
- Milling service for artisanal producers

**Customer Relationships**
- Regular, repeated sales

**Customer Segments**
- Domestic markets
  - Both urban and rural

**Channels**
- Sales to traders
- Sales to retailers
- Sales of milling services

**Cost Structure**
- Fixed cost from depreciation of mill
- Variable cost is labor and energy

**Revenue Streams**
- Revenue from sales of attiéké
- And from milling services to artisanal producers

Comparison of business models

**Two attiéké business models – capital and employment**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Manual miller &amp; attiéké producer</th>
<th>Mechanized miller &amp; attiéké producer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value proposition</td>
<td>Packaged attiéké</td>
<td>Packaged attiéké (plus milling service)</td>
</tr>
<tr>
<td>Key resources - Type of milling</td>
<td>Manual grinder</td>
<td>Electric mill</td>
</tr>
<tr>
<td>Daily milling capacity, cassava (t)</td>
<td>0,1 ton/ day / worker</td>
<td>1 ton / day (max. 250 days)</td>
</tr>
<tr>
<td>Labor input for milling</td>
<td>5 workers @ 144 days</td>
<td>1 worker @ 144 days</td>
</tr>
<tr>
<td>Labor input for attiéké making</td>
<td>3 workers @ 120 days</td>
<td>4 workers @ 120 days</td>
</tr>
<tr>
<td>Annual attiéké production (tons)</td>
<td>36,0</td>
<td>48,0</td>
</tr>
<tr>
<td>Long-term capital – installations (€)</td>
<td>1.500</td>
<td>7.500</td>
</tr>
<tr>
<td>1 hut for storage @ 5 m²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cassava grinder, 3 huts @ 5 m²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term capital – implements, bags raw material and input purchase (€)</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>Total capital / assets</td>
<td>19.800</td>
<td>32.000</td>
</tr>
</tbody>
</table>
### Comparison of business models

#### Two attiéke business models – cost and benefits

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<tr>
<td>Fixed cost (FC) per annum (€)</td>
<td>480</td>
<td>2350</td>
</tr>
<tr>
<td>Repair, depreciation (20%), renewal of implements, interest on investment (8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable cost (VC) per ton (€) attiéke</td>
<td>510</td>
<td>490</td>
</tr>
<tr>
<td>Raw material (Cassava) Labor, Energy, water, packaging, other inputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales price for attiéke per ton (€)</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>Contribution margin per ton (sales price - VC)</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Break-even point (in tons of attiéke)</td>
<td>12</td>
<td>39</td>
</tr>
<tr>
<td>Number of workers required for attiéke making to break even</td>
<td>1,0</td>
<td>3,5</td>
</tr>
<tr>
<td>Percentage of milling capacity used to break even</td>
<td>Milling capacity depends on number of workers</td>
<td>15,6% (39 tons of 250 tons)</td>
</tr>
<tr>
<td>Service fee per ton milled for others</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

### Comparison of business models

#### Two attiéke business models – profits per year

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<td>Repair, depreciation (20%), renewal of implements, interest on investment (8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Variable cost (VC) per ton of attiéke</td>
<td>18360</td>
<td>23520</td>
</tr>
<tr>
<td>Total variable cost for service milling (96 tons)</td>
<td>0</td>
<td>192</td>
</tr>
<tr>
<td>Total cost</td>
<td>18840</td>
<td>26062</td>
</tr>
<tr>
<td>Total revenue for attiéke sales</td>
<td>19800</td>
<td>26400</td>
</tr>
<tr>
<td>Total revenue for service milling</td>
<td>0</td>
<td>1440</td>
</tr>
<tr>
<td>Total revenue</td>
<td>19800</td>
<td>27880</td>
</tr>
<tr>
<td>Profits per year</td>
<td>960</td>
<td>1818</td>
</tr>
</tbody>
</table>
**Conclusions for VC development**

*What can we make of the attié ké biz model analysis?*

- The “mechanized milling” business model is an attractive solution for small-scale attié ké producers. It is more profitable than the other.
- Investment is in the order of 6000 €. The development step is feasible for small enterprises.
- While it reduces hard and unproductive labor, it creates jobs in other processes and supplying enterprises, as the capacity and volumes of production go up.
- Artisanal producers benefit from the possibility to use the milling services.
- The technology and business model are “open source” knowledge.
- The limitation is the end market demand. Once a region is served, it does not make sense to support additional investment.

**Conditions, limits and risks**

- Business model development and financial analysis are always prone to error. The decision to invest and the risk are taken over by entrepreneurs – not by analysts.
- Outsiders often do not have access to the requisite data. Unless enterprises and companies are interested in collaborating with development agencies and a trusting partnership is created, external agencies cannot go for supporting business models.
- Analysts should not spread business secrets that individual enterprises need to stay competitive.
- There are limits to replicating interesting business models because of limited market demand and decreasing product prices in end markets.