Feasibility Study
On the expansion of a Startup Rice Company in Togo

Austin Cross, Alice Dien, Ziqra Raza
Client’s wishes

- Increase the quality of processing
- Business capital of USD 25,000
- Increase her annual production by 10
- Hire more employees for expansion
- Acquire processing equipment
- Expand market size
- Have a climate risk strategy

Asian rice vs. Prince des Champs rice
“How do we make the startup more competitive and therefore more profitable?”
Methodology

- Canvas Business Model
- Business Plan with Economic Sensitivity Analysis
- Recommendations
CANVAS BUSINESS MODEL

4 major sectors

Source: https://sites.google.com/site/moocmodulesnils/_/rsrc/1472851821761/marketing/the-business-model-canva/BMC1.jpg
Key Partners

Channels

Key Activities

Value Proposition

Business Model
Economic Sensitivity Analysis

**Client’s Information**
- 250,000 kg rice/year
- $25,000 capital
- Loan interest rate 9%, 3 years
- 5 employees
- Selling price: 1.20 $/kg
- Some of the production costs

**Assumptions**
- All the rice produced is sold
- Discount rate of 5%
- All the investment is used in machines and equipment
- Production rate evenly distributed
- No economic growth
- Inflation will have the same effect on revenues and expenses
- Project’s life: 5 years
Economic Sensitivity analysis

Client’s ideal state

Income from year 1

Net Present Value (NPV) = 46,858$

Internal Rate of Return (IRR) = 27%

Q = 1,87 $/$/ invested
Economic Sensitivity analysis

Production rate < 225,000 kg/year
NPV < 0$
# Economic Sensitivity Analysis

<table>
<thead>
<tr>
<th></th>
<th>Current State</th>
<th>Ideal State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Cost</td>
<td>0,20 $/kg</td>
<td>0,20 $/kg</td>
</tr>
<tr>
<td>Transportation Cost</td>
<td>0,60 $/kg</td>
<td>0,40 $/kg</td>
</tr>
<tr>
<td>Selling Price</td>
<td>1,20 $/kg</td>
<td>Selling price 1,5 $/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 employees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100,000 kg rice/year</td>
</tr>
</tbody>
</table>
RECOMMENDATIONS

- Apply for grants and/or loans using the Business Plan
- Conduct needs assessment in community (BLUM and PATA grants)
- Identify (and market) rice quality with IRRI Quality Assessment Kit
- Marketing recommendations: Website/Facebook/Instagram/Posters
- Economic Sensitivity Analysis
- Packaging Design (Potential D-Lab II project)
  - Make the packaging more attractive, safe for rice and cheap (< 0.3$/bag).
Thank you!
Any Questions?

Austin Cross, Alice Dien, Ziqra Raza