New product development: alternative recipes
Main objectives and outcomes:

- **reduce overall formula cost** ➔ lower selling price to increase coverage & scaling-up
- integrate a **new raw material**, commonly consumed in southern and eastern Africa

Main challenges:

- **secure raw material sources matching quality requirements**
- clarify **requirements regarding acceptability study** ➔ impact on time to market delivery.
CHALLENGES

✓ Nutrition
Need to pay attention to some other criteria:
  • starch gelatinization during process
  • fibers
  • anti-nutritional factors
!/!
\ analysis method reliability
!/!
\ lack of consolidated database & specifications

✓ Sourcing & Quality
The more raw ingredients are, the highest quality risk is (microbiological load, contaminants)
  ➢ Needs agricultural value chain development & traceability strengthening
  ➢ Use of technologies to reduce microbiological load and anti-nutritional factors through raw material transformation process
    ✓ Identify reliable suppliers, ready to improve their manufacturing practises
    ✓ Integrate internally the process => requires significant investments
  ➢ Price reduction more difficult to achieve if manufacturers need to invest to compensate for less developed suppliers ecosystem. (as new raw material usually are incorporated in place of peanuts)

✓ Time-to-market delivery
Depends on:
  ➢ Above-mentioned challenges & new ingredients processability
  ➢ Requirements regarding endorsement of a new alternative formula by international buyers
ACCEPTABILITY STUDY PROPOSAL

Method: quantitative & qualitative study, controlled randomized, double-blind, cross-over

- Questionnaire (rate on scale acceptability and the main attributes of the product) + follow-up potential adverse effect
- Focus Group

Recruitment

<table>
<thead>
<tr>
<th>J 1</th>
<th>J 2</th>
<th>J 3</th>
<th>J 4 -8 // J 11-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>individuals (established criteria)</td>
<td>Pre Test of the protocol (the data will not be analyzed)</td>
<td>Evaluation (taste, texture, general appearance, etc.)</td>
<td>Quantity consumed in 15 min</td>
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- Recruitment
- Selection of individuals (established criteria)
- Recording
- Explanation of the study

Home Test center

Test center

20

40 mother-child couples

Pretest with another product

Plumpy' Sup

Plumpy' Sup Corn

Plumpy' Sup

Plumpy' Sup Corn

Plumpy' Sup Corn

Plumpy' Sup
Thank you for your attention