

SENSORY EVALUATION OF CHICKEN HALEEM SPREAD

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1. CONTEXT OF THE STUDY

To understand consumer acceptance and market viability.

Define the perceived flavor profile and nutritional perception

Step 1: Soaking * Duration: 6–8 hours.

Scientific Purpose: This step hydrates the grains and improves the gelatinization of starches during the cooking phase.

Step 2: Base Preparation

Sautéing the onions, spices, and meat to build the initial flavor profile.

Step 3: Slow Cooking

Duration: Traditionally 6–8 hours, though your adapted method used a 30-minute high-flame cook with ground lentils.

Step 4: Mechanical Mixing

Mashing or blending the cooked mixture breaks down the ingredients further.

Scientific Purpose: This creates a distinct fibrous meat texture while simultaneously achieving a smooth overall consistency.

Step 5: Tempering (Tarka) & Final Preparation

Applying a temper (Tarka) adds final aroma and gloss to the dish.

Garnishing with fried onions, coriander, and lemon juice completes the preparation.

REFINE RECIPE TO
MATCH THE
EUROPEAN TASTE
BUD



2. SCIENTIFIC METHODOLOGY

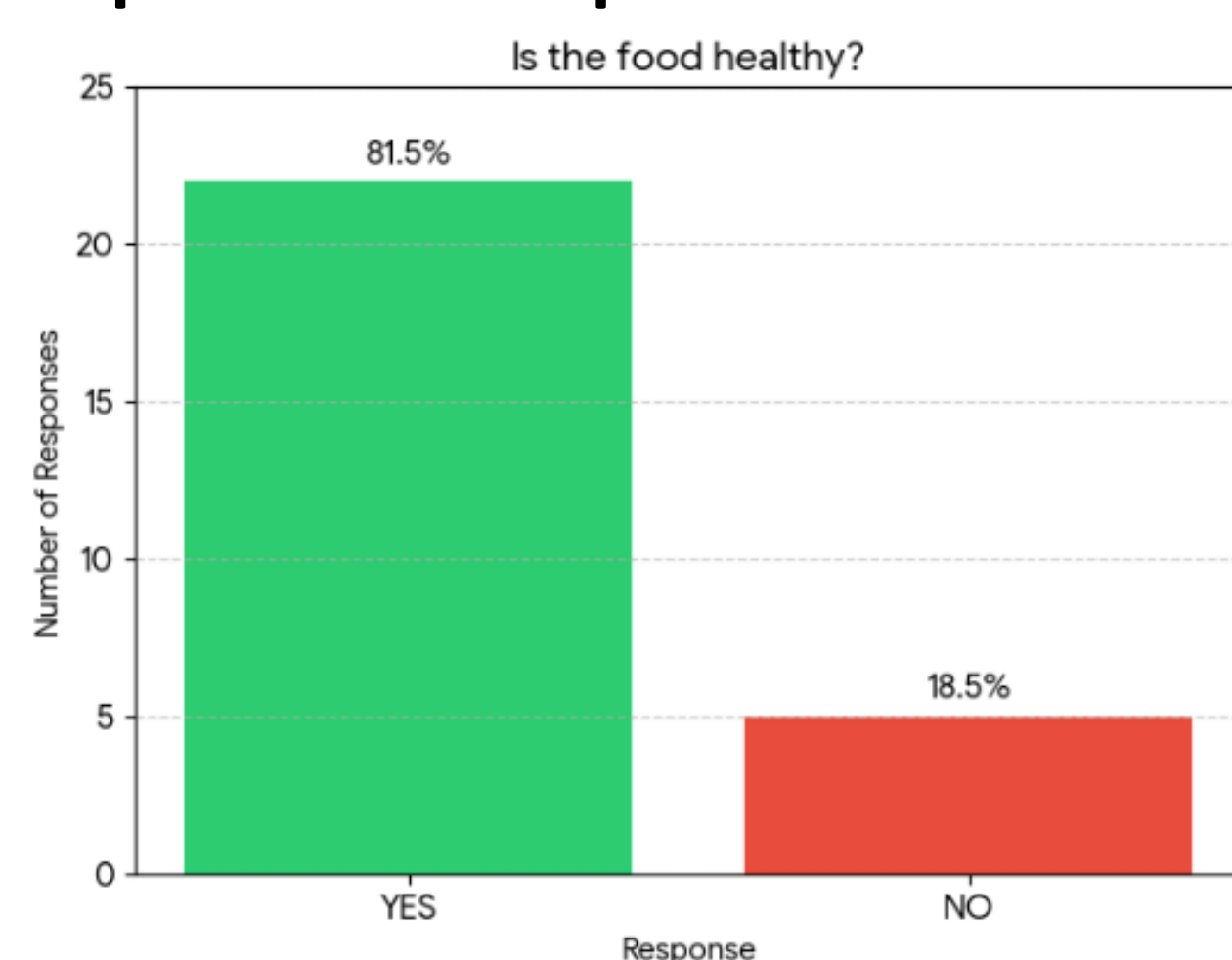
- **Slow cooking utilizes gentle heat** (75°C to 95°C) to safely unwind proteins without destroying their nutritional value.
- **It relies on a "moist-heat" method**, which creates a water barrier that prevents scorching and protects protein quality.
- **The gradual simmering process** allows tough meat fibers to relax and break down, yielding a highly tender and shreddable texture.
- **Lentils naturally contain phytic acid**, an anti-nutrient that binds to essential minerals in your digestive tract.
- **Soaking neutralizes this phytic acid**, successfully unlocking crucial minerals like iron, zinc, and calcium for your body to absorb.
- **Lentils also contain oligosaccharides**, which are complex carbohydrates that humans struggle to digest, often causing bloating.
- **Soaking leaches out these complex sugars**, making the lentils significantly easier on your digestive system.
- **The soaking process mimics germination**, which naturally activates the lentils' internal enzymes.
- **These activated enzymes begin breaking down** complex starches and proteins before the cooking process even begins.
- **Together, soaking and slow-cooking** essentially "pre-digest" the food, maximizing both nutrient absorption and overall digestibility.

3. INNOVATIONS LEVERS

- **Healthier Fat Profile:** Reducing the *tarka* (tempering) directly cuts down on added oils, lowering the overall calorie and fat content to create a much healthier, lighter spread.
- **Textural Contrast:** Adding fresh cucumber introduces a crisp, refreshing crunch that perfectly balances the thick, smooth consistency of the blended Haleem.
- **Spice Mitigation:** The natural cooling effect of the fresh cucumber helps mellow and balance the high heat and spiciness that your sensory panelists reported.
- **Aromatic Lift:** Garnishing with fresh coriander provides a vibrant pop of color and a bright, herbal aroma without adding the heavy calories associated with traditional fried onion garnishes.
- **Flavor Balancing:** A squeeze of fresh lemon juice cuts right through the savory richness of the slow-cooked meat and lentils, brightening the entire flavor profile while adding a beneficial boost of Vitamin C.

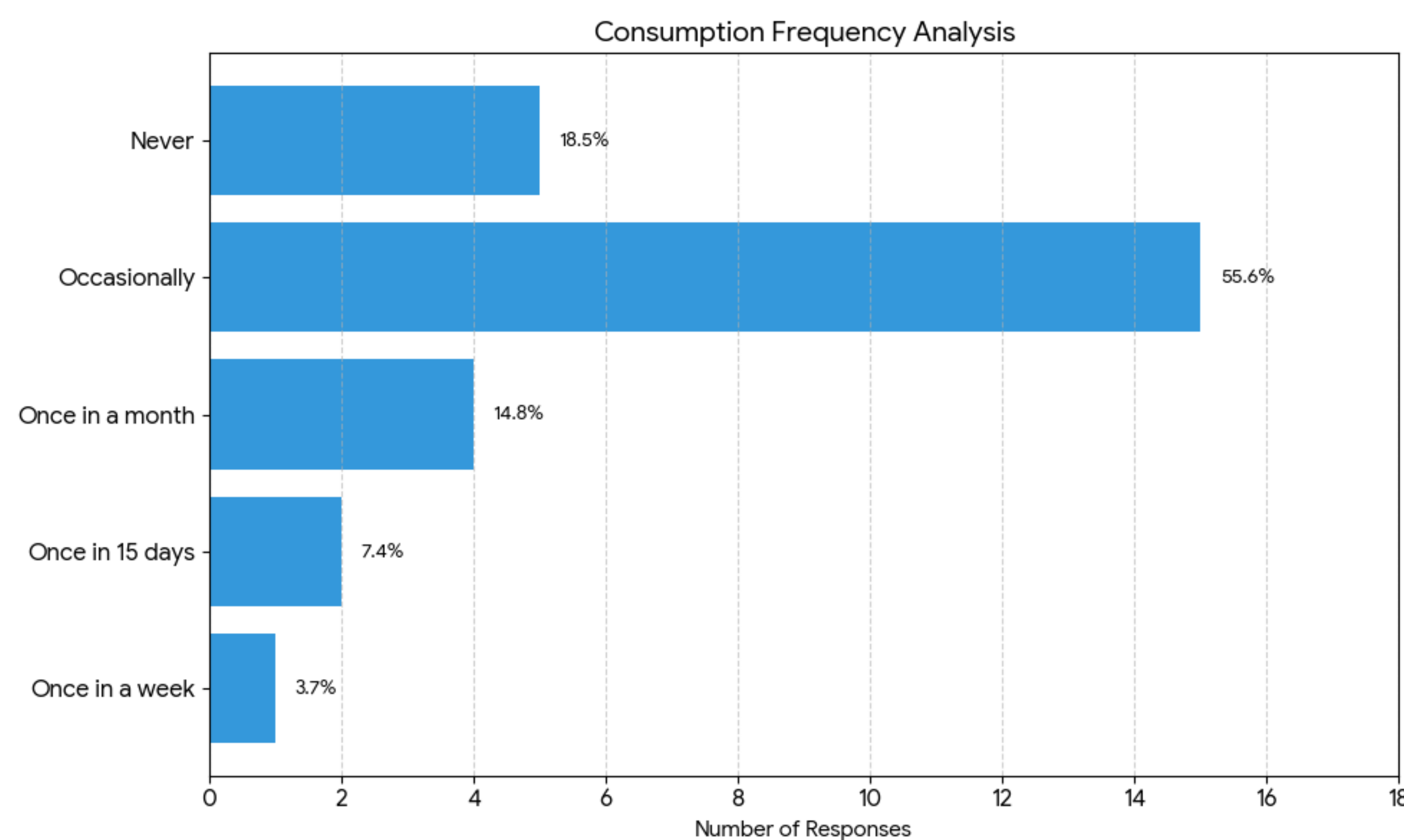
4. MAIN RESULTS

Is the food provided perceived to be healthy ?



- The Unstructured **Visual Analog Scale (VAS)** line was 10 cm long and 0cm was dislike and 10 cm was like the results are as follows
Appearance 7.3 cm average
Smell 6.8 cm average
Taste 5.7 cm average
Overall 5.6 cm average
- If consumer wanted to consume with a combination of something 26 yes, 1 no and the most common item to mix with is bread, tortilla, toast and rice.
- For the spiciness of the spread most people felt it spicy
- For the viscosity of the product people felt it a little thick

How often will people consume ?



5. CONCLUSIONS & PERSPECTIVES

- Chicken Haleem Spread showed **moderate overall acceptance** among consumers
- **Appearance and aroma were well liked**, but **taste scored lower**
- Product was perceived as **too thick and overly spicy**
- Most consumers preferred it **with accompaniments** (bread, rice, etc.)
- Considered **healthy and homogeneous** by participants
- **Scope for improvement:** adjust spice level and optimize texture
- Overall, the product has **good market potential with refinement**

Changes to be done when testing next time

- Warn the panalist in advance of the spice
- Provide something to add with (bread).
- Provide more clarification for the questions