Analysing the Acceptability of Plant-based Milk and its Recipe Development on Sponge Cakes

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PLANT-BASED MILK (PBM)

In the past, the PBM market was unfamiliar to people. Citizens know about it because of their problems (LI, milk allergy). **In recent years**, people are aware of the reasons for a healthy life, environmental problems, vegan, and vegetarianism, which enables factories to provide more PBM to the market.

Due to the trend, businesses do more promotion in supermarkets or through advertisements (Vaikma et al., 2021). People turn to try PBM, leading to the decrease sales of dairy milk.

RESEARCH OBJECTIVES

1. To evaluate the popularity and acceptability of PBM. **(RQ1)**
2. To examine the relationship among popularity, acceptability, health consciousness (HC), and influence by others (IBO). **(RQ2)**
3. To conduct recipe development and testing on making sponge cake. **(RQ3)**
4. To conduct the sensory analysis to evaluate consumer satisfaction and preference. **(RQ4)**

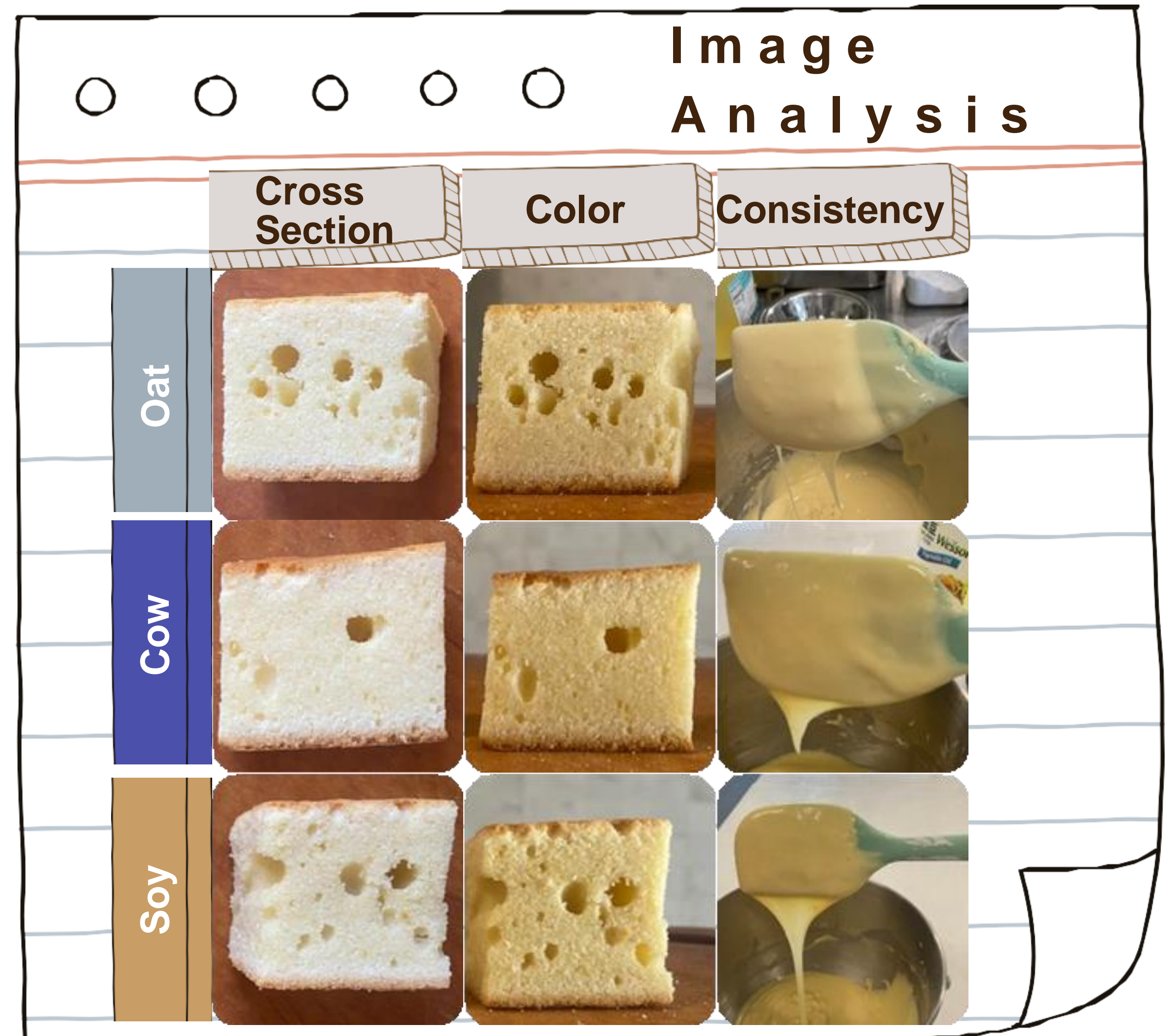## METHODOLOGY

Quantitative Analysis

- Online survey for **RQ1** and **RQ2** with 161 responses.
- Sensory test for **RQ4** with 42 responses.
- Correlation Analysis
- Regression Analysis
- Sensory Analysis

Qualitative Analysis

Oat Milk | Cow Milk | Soy Milk

Recipe Testing

- **Same** recipe (with different milk)
- **Same** baking temperature / time


Image Analysis

FINDINGS

For **RQ4**, the sensory test found that **soy milk cake** has **the most favorable** result. The table below shows what was examined among the samples.

	Color	Texture	Moisture	Flavor
O	Lightly yellow	Soft, suitable hole	Dry, without moist	A few sweetness of oat flavor
C	Yellow	Dense, less of holes	Slightly	Heavy milk flavor
S	Yellow, slightly brown	Soft, many holes	Sufficient	Sweet, with soy flavor

CONCLUSION

As a result of **RQ1 & RQ2,** popularity will affect HC (H4), but it not affect acceptability (H1), HC will affect acceptability (H2), and IBO will affect acceptability (H3).
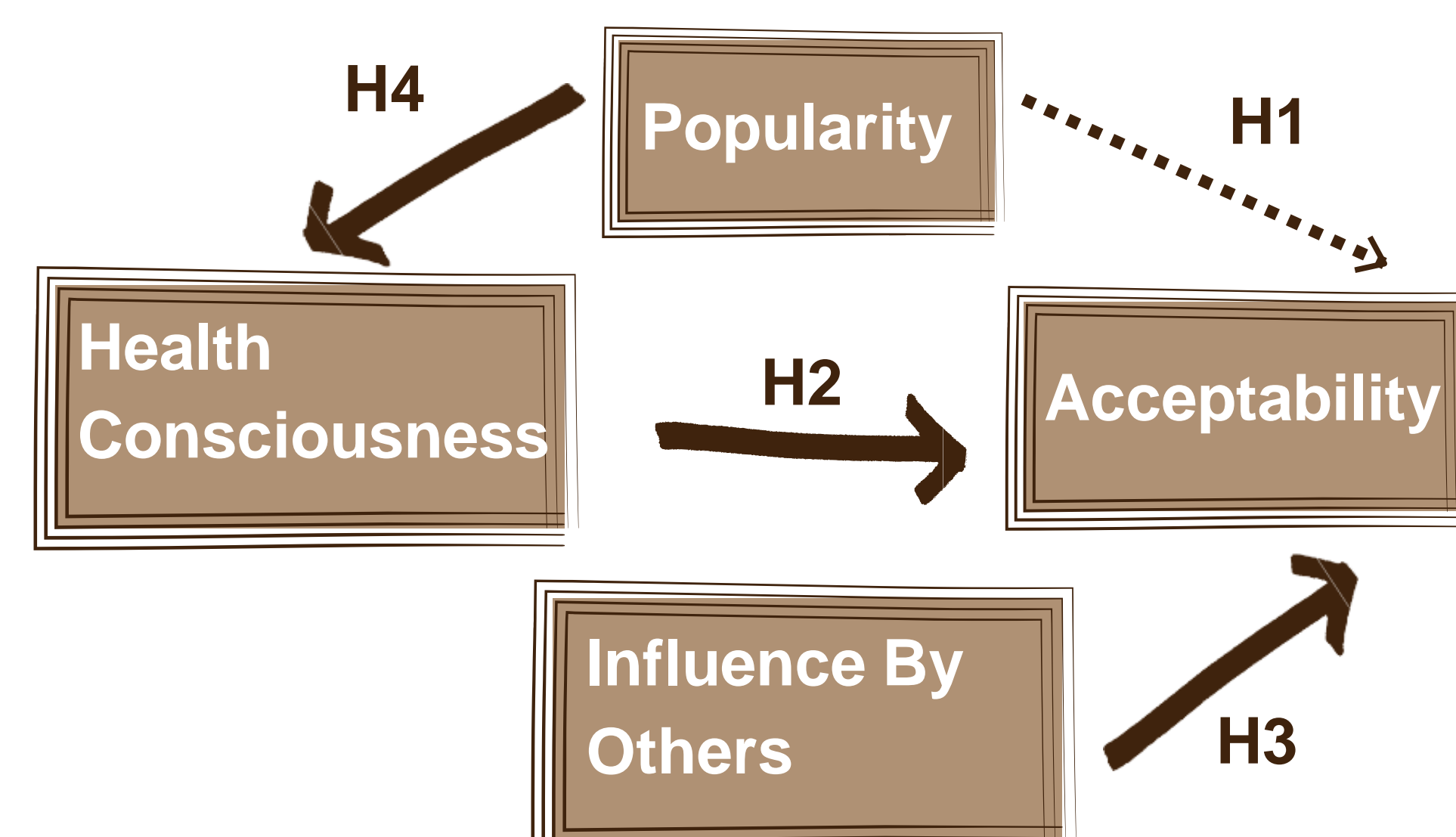
RECOMMENDATION

To provide more insight to practitioners for product development on plant-based food options.