THE U.S. CUSTOMERS' ACCEPTABILITY AND EMOTION MEASURES WHEN CONSUMING NOVEL KOREAN TRADITIONAL NON-ALCOHOLIC DRINKS

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Introduction

- The Korean government cooperating with overseas and local Korean restaurants and food companies has been making its great efforts on the globalization of Hansik (the Korean food) for the last few years.

Objectives

- To determine the US consumers' acceptability of novel Korean traditional non-alcoholic drinks
- To learn how EsSense Emotion Profile can be used when testing novel drinks
- To determine the influence of information on acceptability and emotion of novel drinks

Materials and Methods

Questionnaires

- Questions:
  - Hedonic questions (Overall, Sweetness, Bitterness)
  - Intensity JAR (Sweetness, Bitterness)
  - EsSense Emotion Profile
- Two Questionnaire Types:
  - Without Information and Samples labeled with 3 digit random numbers
  - With names and stories about each sample

Preliminary Testing

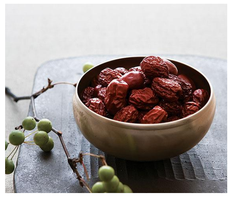
- Consumers tasted samples without information, then with information
  - Jujube → Korean Date
  - Too many samples → Split to two groups evaluating one type of questionnaire

Sample Information

Bokbunja



Korean Date



Omija



Sansuyu



Red Ginseng



Yuja



Information Example:
Bokbunja is a type of the raspberry that is indigenous to Korea, they usually grows in fields and mountains. They come into blossom in May and grow ripe with a wine color in June to July. The ripe fruit tastes both sweet and sour, which is very nice. It was named Bokbunja based on an interesting story. The name literally translated from Hanja, 'bok' means turning over, 'bun' means chamber pot, and 'ja' means man. If one urinates after eating Bokbunja, the strong power of urine will turn the chamber pot upside down. When it is used as a medicine, it must be picked when it is not yet ripe and then must be dried.

The Bokbunja extract products include Bokbunja puree (40% of extract) and Acacia Honey, organic agave syrup, and pear concentrate, all produced in Korea. The extract should be diluted with three times as much water was concentrate before consumption; as per instruction on the package.

One serving is 2 oz. (60 mL), it provides 50 Calories from 13 gram of Carbohydrate (10.5g sugar). This beverage is not a source of protein, fat, saturated fat, trans fat, cholesterol, or sodium.

Results and Discussion

Overall Liking of samples

- All six samples received higher liking for overall liking, liking of sweetness, and liking of bitterness when information about the sample was provided
- Bokbunja, Yuja, and Korean Dates may be introduced to the US Market as new fruit flavor
- The difference was bigger for the samples consumers disliked, such as Hongsaam (Red ginseng) and Omija

Sweetness

- Although the sweetness of all six samples were adjusted to be the same, just about right evaluation was influenced by liking. Majority consumers said Bokbunja sample had just about right sweetness when majority indicated Hongsaam was not sweet enough.

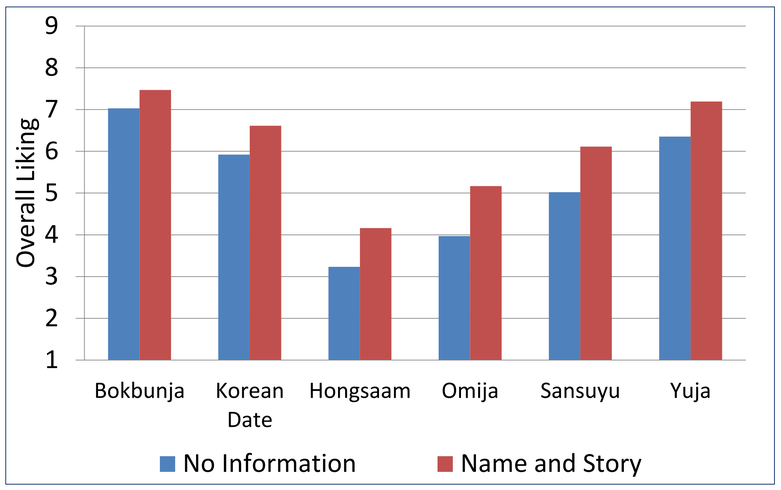


Figure 1. Average liking scores for Korean Traditional non-alcoholic drink samples

Results and Discussion (cont.)

Emotions

Initial: How are you feeling today?

- Consumers coming to sensory taste test generally felt
- Not at all – Slightly: Aggressive, Disgusted, Guilty, and Bored
- Slightly- Moderately: Affectionate, Daring, Mild, Nostalgic, Tender, Wild, Worried
- Moderately: Active, Adventurous, Calm, Eager, Energetic, Enthusiastic, Free, Joyful, Loving, Merry, Peaceful, Pleased, Quiet, Satisfied, Steady, Tame, Warm, Whole,
- Moderately – Very: Friendly, Glad, Good, Good-natured, Happy, Interested, Pleasant, Polite, secure, Understanding
- None of the emotions were expressed as 'Extremely' on average.

Emotion Changes

- Tasting samples influenced emotions.
- Table 3 shows the emotion changes with two samples with and without information.
- Bokbunja was the most liked sample and tasting this sample influenced consumer emotions positively, especially pleased and pleasant emotions. Although not significant, no information influenced consumers' emotions more.
- Hongsaam was the least liked sample and tasting this sample influenced consumer emotions negatively – reducing feeling calm, energetic, enthusiastic, glad, etc. and significantly increasing feeling 'disgusted'. Providing information (Name and story) tends to reduce the negative influence on emotions.

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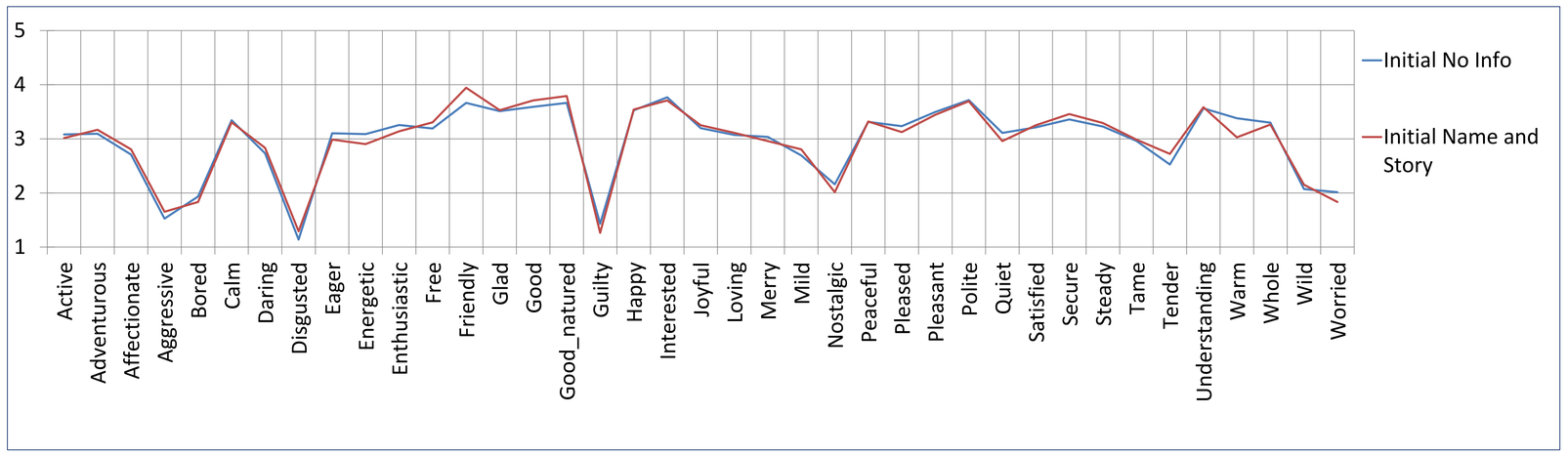

Figure 2. Average initial emotion before taste test

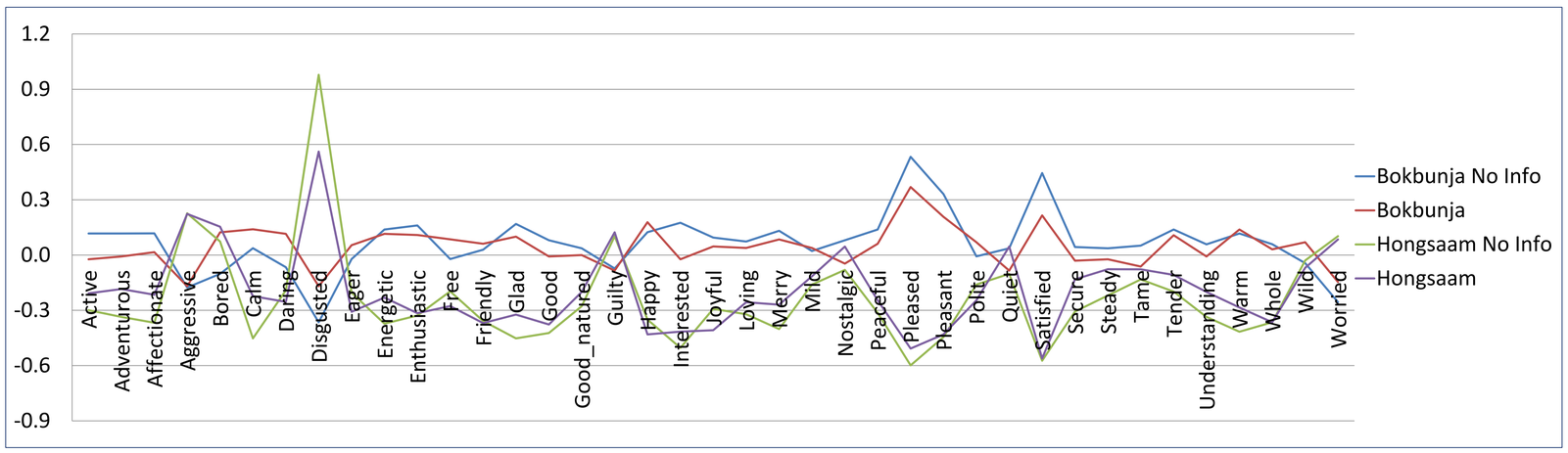

Figure 3. Average emotion change after consuming taste samples (Bokbunja – most liked sample; Hongsaam most disliked sample)