

Comparative Sensory Evaluation of Three Carbonated Kombucha Beverages Available in the Paraguayan Market

Alvarez, Sandra¹; Alderete, Andrea¹; McGahan, Shaun¹; Fleitas, Bianca¹; Santander, Jana¹; Meza, Javier²

¹ Faculty of Exact and Natural Sciences, National University of Asunción, San Lorenzo, Paraguay

² Scooby Shot Kombucha, Independent Entrepreneurial Project, Paraguay

INTRODUCTION & AIM

Kombucha is a fermented tea beverage of ancient Chinese origin, produced with a biofilm known as SCOBY (Symbiotic Culture of Bacteria and Yeast). In recent years, its popularity has grown worldwide due to its natural and functional properties. Scooby Shot, a Paraguayan venture founded in 2021 in Fernando de la Mora, started with just 6 liters and now produces 150 liters per month in flavors such as Hibiscus, Apple, Grape, Passion Fruit, and Mango. Since 2025, the company has also commercialized water kefir (80 L/month) and milk kefir (25 L/month), while promoting fermentation culture through courses and workshops. A sensory acceptance analysis revealed that Scooby Shot kombucha was the most preferred by consumers compared to industrial brands, highlighting its competitive potential and reinforcing our commitment to quality, authentic flavor, and the benefits of natural fermentation.



METHOD

A sensory acceptance analysis was carried out with the participation of 102 panelists.

The kombucha samples were served in disposable plastic cups, each coded with the numbers 187, 203, and 314, corresponding to different brands. The identity of the samples was not disclosed to the evaluators.

Each panelist received a structured survey (see model), where they recorded basic information (age, nationality, occupation) and rated each sample using a 5-point hedonic scale:

- 1 = Like very much
- 2 = Like slightly
- 3 = Neither like nor dislike
- 4 = Dislike slightly
- 5 = Dislike very much

Additionally, participants were asked to indicate which kombucha they would be willing to consume.

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RESULTS & DISCUSSION

Sensory acceptance studies revealed a clear consumer preference for the artisanal kombucha over industrial products.

With a sample of 102 participants, the artisanal kombucha achieved an average acceptance score of 1.61 on a 1-to-5 hedonic scale (where 1 indicates the highest acceptance and 5 the lowest). The most valued attributes were flavor, freshness, and the absence of additives.

These findings highlight the brand's strong competitive potential in comparison to well-established products on the market.

Figure 1: Consumer Acceptance of Three Kombucha Brands in Paraguay

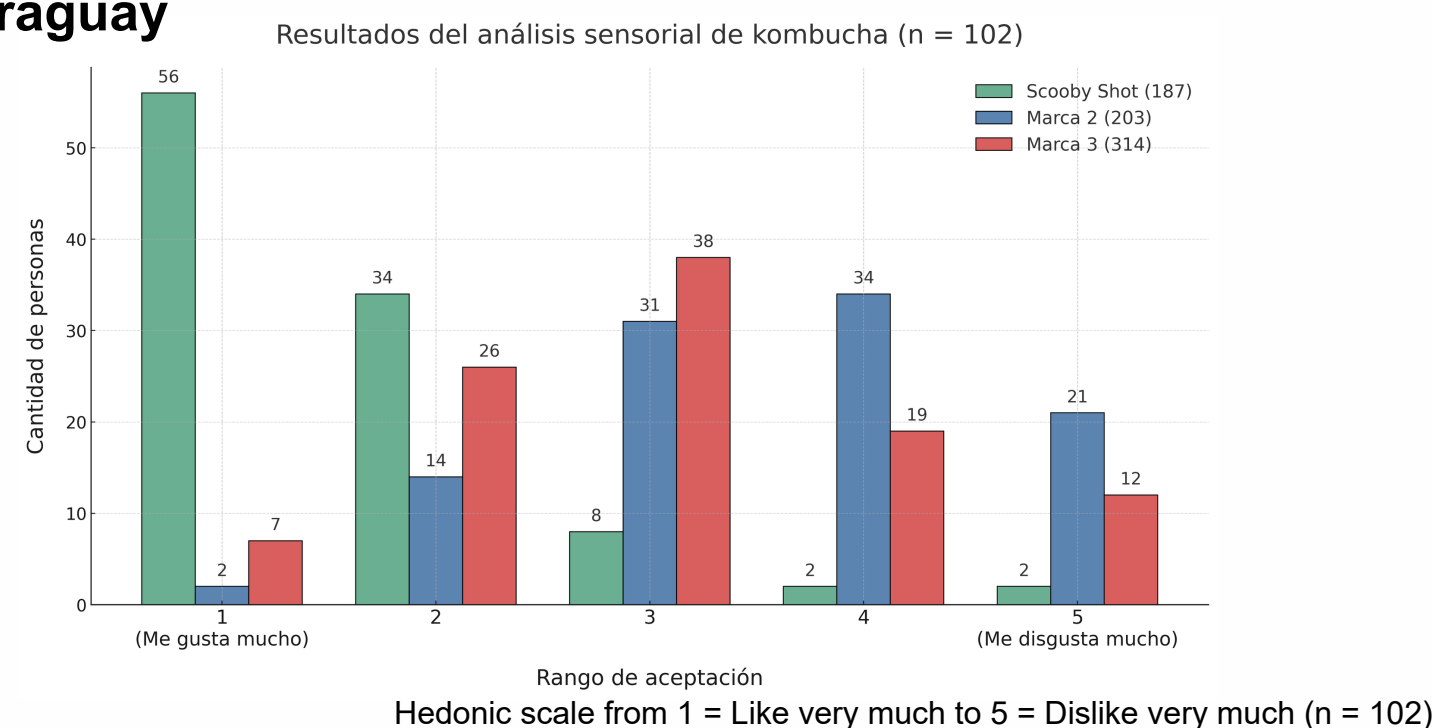
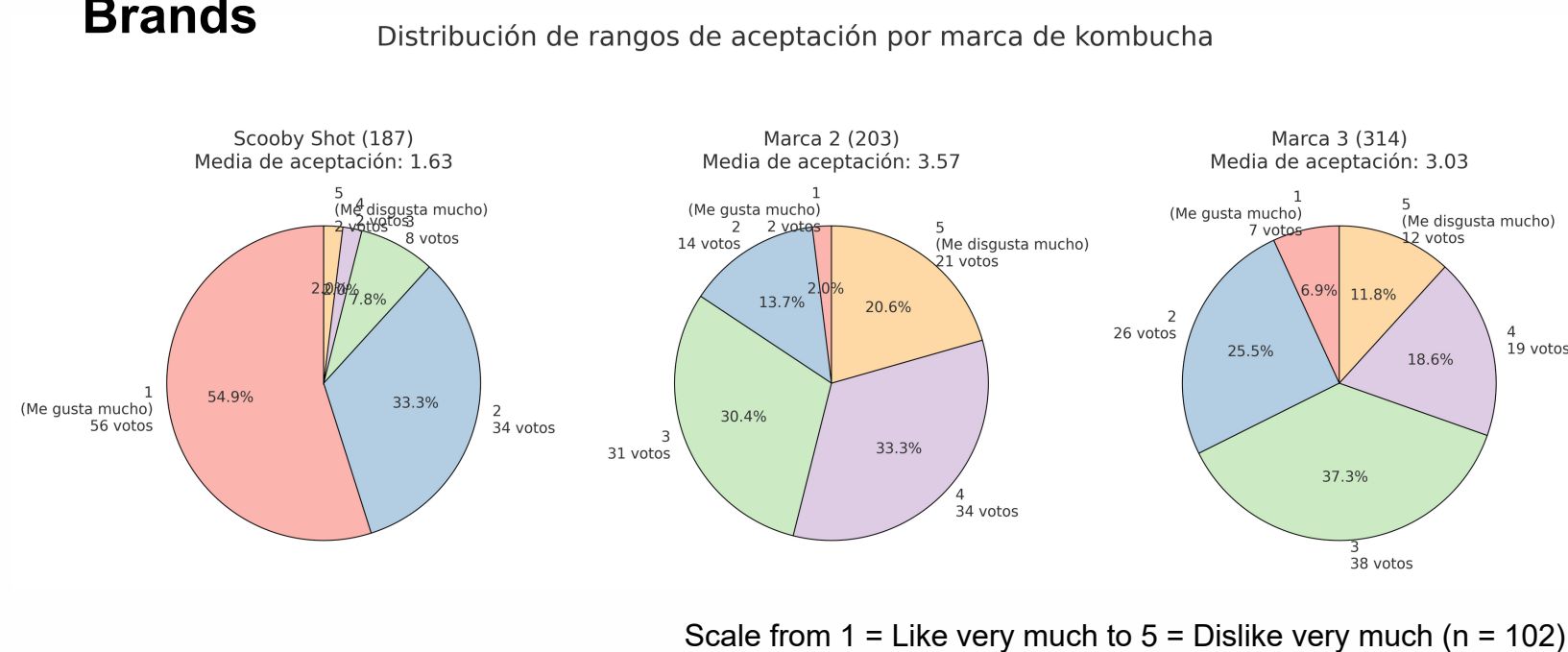


Figure 2: Distribution of Hedonic Ratings for Three Kombucha Brands



CONCLUSION

The sensory acceptance results revealed that the artisanal kombucha brand achieved the highest level of consumer preference, with an average acceptance score of 1.61 on a 1-to-5 hedonic scale (n = 102).

These findings demonstrate that artisanal kombucha can achieve high consumer acceptance and compete effectively with established industrial brands, highlighting its potential market advantage in Paraguay.