

¹ Food Research & Development Institute, Morinaga Milk Industry Co., Ltd., Zama, Kanagawa, Japan; ² Food Solution Institute, Morinaga Milk Industry Co., Ltd., Zama, Kanagawa, Japan

*E-mail: daishou-yoshihara757@morinagamilk.co.jp

This study aimed to develop a list of terms for measuring consumer emotions associated with milk coffee, evaluate emotions related to various chilled milk coffee beverages sold in Japan, and explore the relationship between these emotions and flavor characteristics.

- We developed a list of emotional evaluation terms for milk coffee by screening terms using EsSense Profile® and additional terms through term collection.
- Emotional evaluations of milk coffee using the new terms revealed correlations with flavor characteristics. This study visualized the differences in emotions evoked by various milk coffee flavors. The findings suggest the potential to recommend different milk coffee flavors based on consumers' emotions and circumstances.

Figure 1. Composition of samples (Milk solid, Coffee, and Sugar)

- 1) In the emotion evaluation using 39 EsSense Profile® terms, terms with a selection rate <10% and no significant difference ($p > 0.05$) among the six samples were excluded (first quantitative screening [QS]).
- 2) An online survey of 200 consumers was conducted to collect appropriate positive Japanese terms for “Non-Sugar” and “Non-Sweet”. Terms described by $\geq 10\%$ of 97 fans of these beverages were consolidated as synonyms and newly added.
- 3) In the emotion evaluation using the optimized terms, a second QS was performed.

* “Interested” was deleted during the second QS.

Figure 2. Correspondence analysis of the CATA

Figure 3. Principal component analysis of the QDA

[1] Hatakeyama *et al.* 2023, *Food Science and Technology Research*, 29(3), 197-209 [2] King and Meiselman 2010 *Food Quality and Preference* 21(2), 168–177
[3] Robert, P. & Escoufier, Y. *Journal of the Royal Statistical Society. Series C (Applied Statistics)*. 25, 257–265 (1976).