Does a change in data capture method affect sensory descriptive analysis results?

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Introduction

Objective
- To determine if data capture device type had a significant influence on sensory descriptive analysis results

Materials and Methods
- Sensory descriptive analysis of 4 snack bars
- 20 attributes
- 3 Devices: iPod, iPad and Laptop with Monitor
- 3 days * 3 sessions/day * 4 products/session
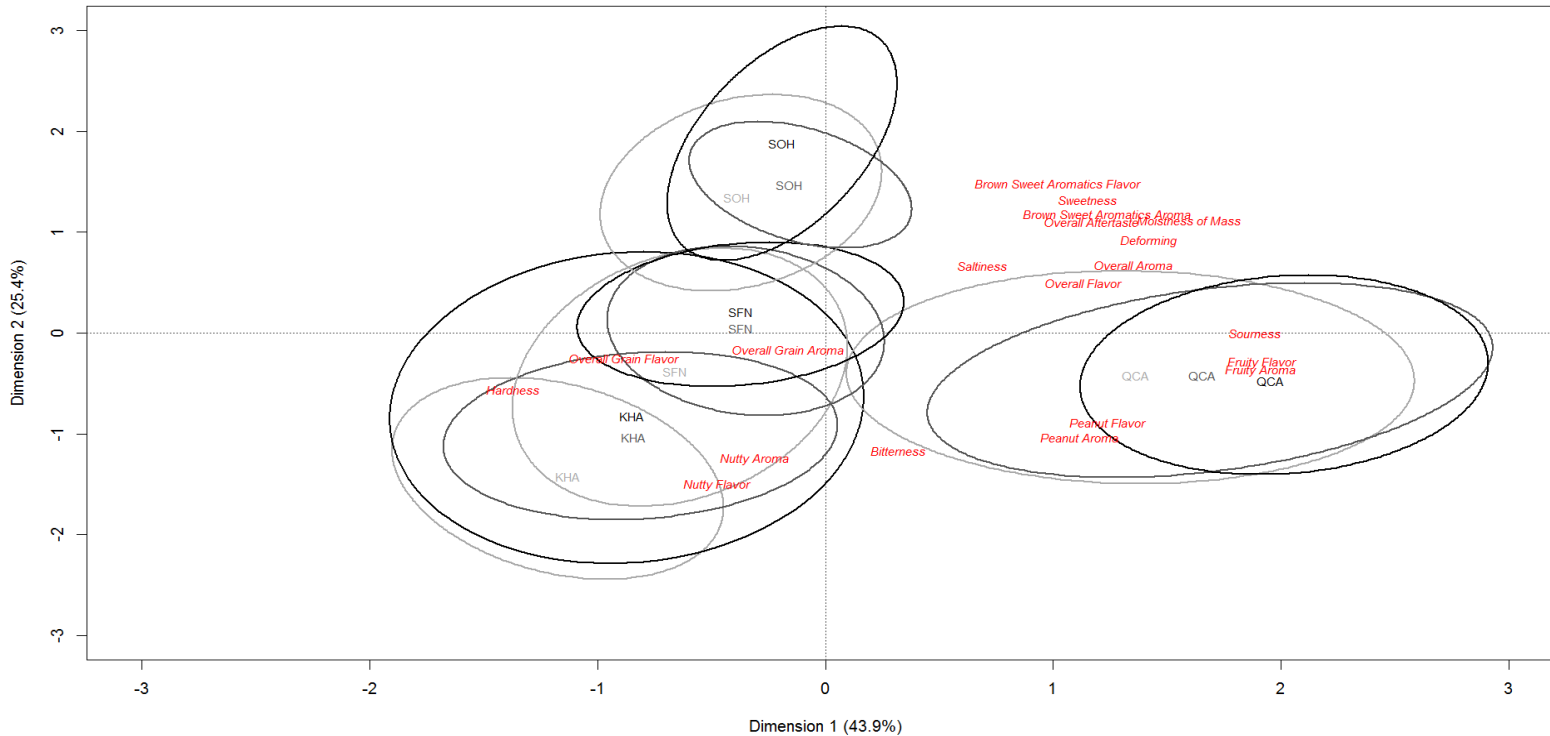- 12 assessors

Results

Panel means for sensory attributes on the 3 devices.

Attribute	iPod	iPad	Monitor	LSD
Overall A.	37.1 a	36.2 b	33.7 c	0.75
Overall Grain A.	25.2 a	23.9 b	22.2 c	0.74
Brown Sweet Aromatic A.	23.5 a	23.4 a	20.6 b	0.88
Fruity A.	5.9 a	5.5 ab	4.9 b	0.87
Nutty A.	16.7 a	16.3 a	13.9 b	0.95
Peanut A.	10.7 a	10.8 a	8.6 b	1.10
Overall Fl.	37.1 a	36.3 b	33.3 c	0.72
Overall Grain Fl.	26.7 a	25.7 b	23.0 c	0.69
Brown Sweet Aromatics Fl.	23.6 a	23.2 a	20.6 b	0.82
Fruity Fl.	6.9 a	5.7 b	5.3 b	0.78
Nutty Fl.	17.4 a	17.4 a	15.0 b	1.12
Peanut Fl.	10.1 a	10.4 a	8.0 b	1.15
Saltiness	24.5 a	24.2 a	20.9 b	0.75
Sourness	11.6 a	11.1 a	9.3 b	0.72
Sweetness	27.9 a	27.1 b	24.1 c	0.71
Bitterness	11.2 a	10.5 b	9.1 c	0.65
Deforming	50.3 a	49.5 ab	48.6 b	1.64
Hardness	44.2 a	41.8 b	40.2 b	1.62
Moistness of Mass	31.4 a	31.2 a	29.2 b	1.02
Overall Aftertaste	24.3 a	25.0 a	22.3 b	0.77

Different letters indicate significant differences at p≤0.05.

Results

Generalized Procrustes Analysis was used to obtain a consensus configuration of Product x Device objects, overlaid with 95% confidence ellipses.

Conclusion

- Products characterized similarly regardless of device type
- Differences in scale level were observed
- Differences might be due to the stylus vs. mouse
- Further research is required to evaluate the effect of using a stylus

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Thank You

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