

OPEN FRONTIERS OF INNOVATION AND DEVELOPMENT WTH CONSUMER RESEARCH: A CASE WITH CHEWING GUM MINT FLAVOR

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INTRODUCTION

Information about the preferences and consumer acceptance can be valuable keys to the companies focused in to open frontiers of innovation and development. Consumers appreciate the product as a confection, also currently, as a product to oral care or vehicle to specific compounds like prebiotic agents.

RESEARCH AIM

The objective of this study was determining the segmentation of consumers of international different chewing gum mint flavor.

METHODOLOGY

Eight samples of commercial brands of chewing gum mint flavor, was analyzed by 150 consumers. Four samples were sweetened with sucrose and four (sugar-free) sweetened with aspartame/acesulfame-K/sucralose mix. The samples were analyzed by affective tests: I) acceptance analysis with hedonic non structured scales (9cm) in relation to appearance, flavor, texture and overall impression; II) ideal analysis of mint flavor, time of duration of mint flavor and sweetness using just-about-right scale. The data of acceptance tests were analyzed by ANOVA, Tukey’s test, Internal Preference Map and Agglomerative hierarchical clustering (AHC). The data of just-about-scale were analyzed by histogram of frequency of distribution (percent) in relation to scale.

RESULTS

	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5	SAMPLE 6	SAMPLE 7	SAMPLE 8
APPEARENCE	5,22 ^d	6,24 ^c	6,75 ^{c,b}	6,66 ^{c,b}	6,23 ^c	6,27 ^c	7,32 ^b	8,13 ^a
FLAVOR	4,99 ^{b,c}	4,80 ^c	5,84 ^{b,a}	6,29 ^a	6,18 ^a	6,14 ^a	6,24 ^a	6,64 ^a
TEXTURE	4,34 ^c	4,23 ^c	6,20 ^{b,a}	5,78 ^b	6,22 ^{b,a}	6,02 ^{b,a}	6,18 ^{b,a}	6,65 ^a
OVERALL LINKING	4,86 ^c	4,89 ^c	6,15 ^b	6,20 ^b	6,36 ^{b,a}	6,30 ^{b,a}	6,44 ^{b,a}	7,02 ^a

Figure 1 . ANOVA and Tukey’s test for acceptance test .

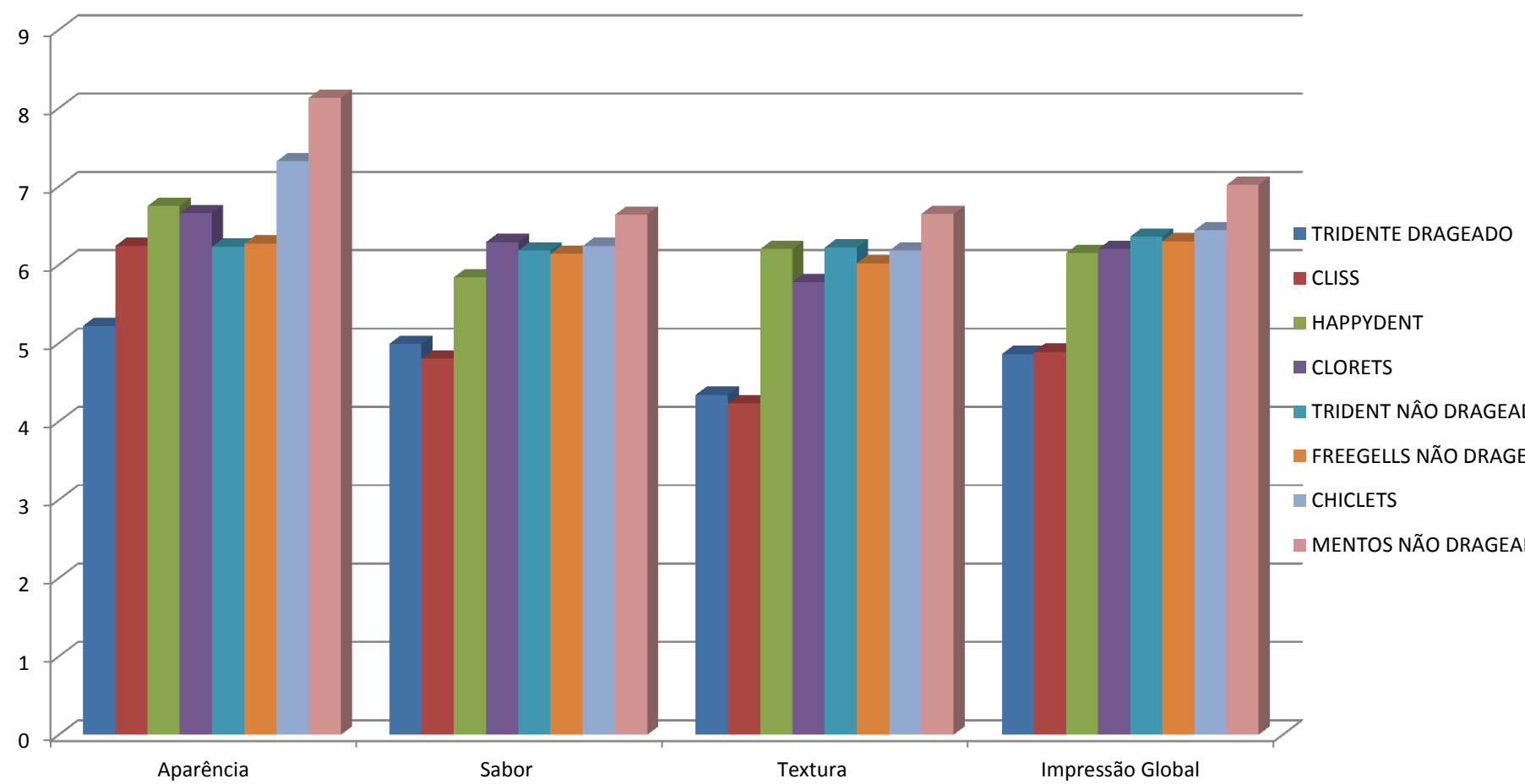


Figure 2 . Histogram showing averages of acceptance testing.

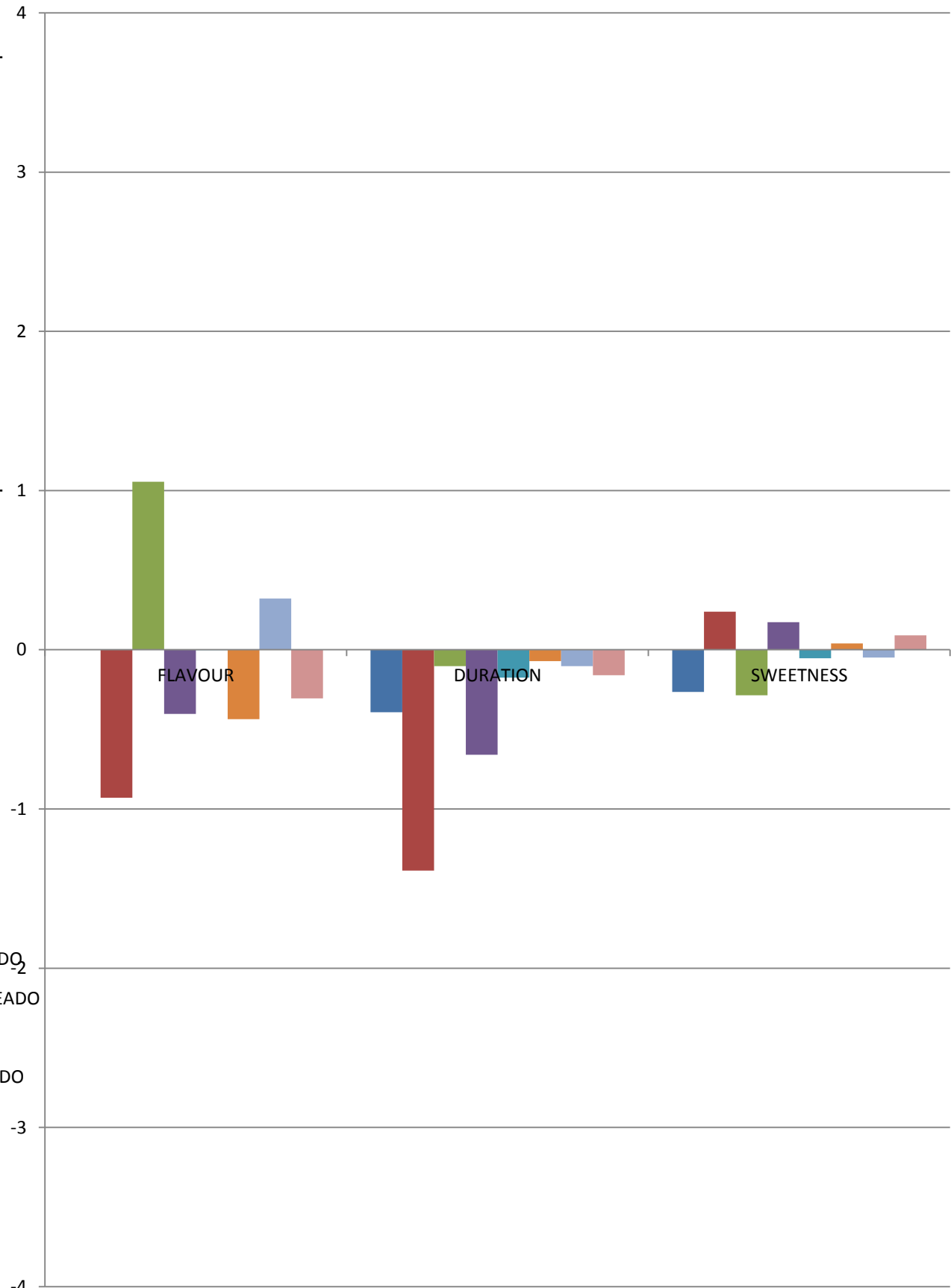


Figure 3 . Histogram showing averages of JAR test.

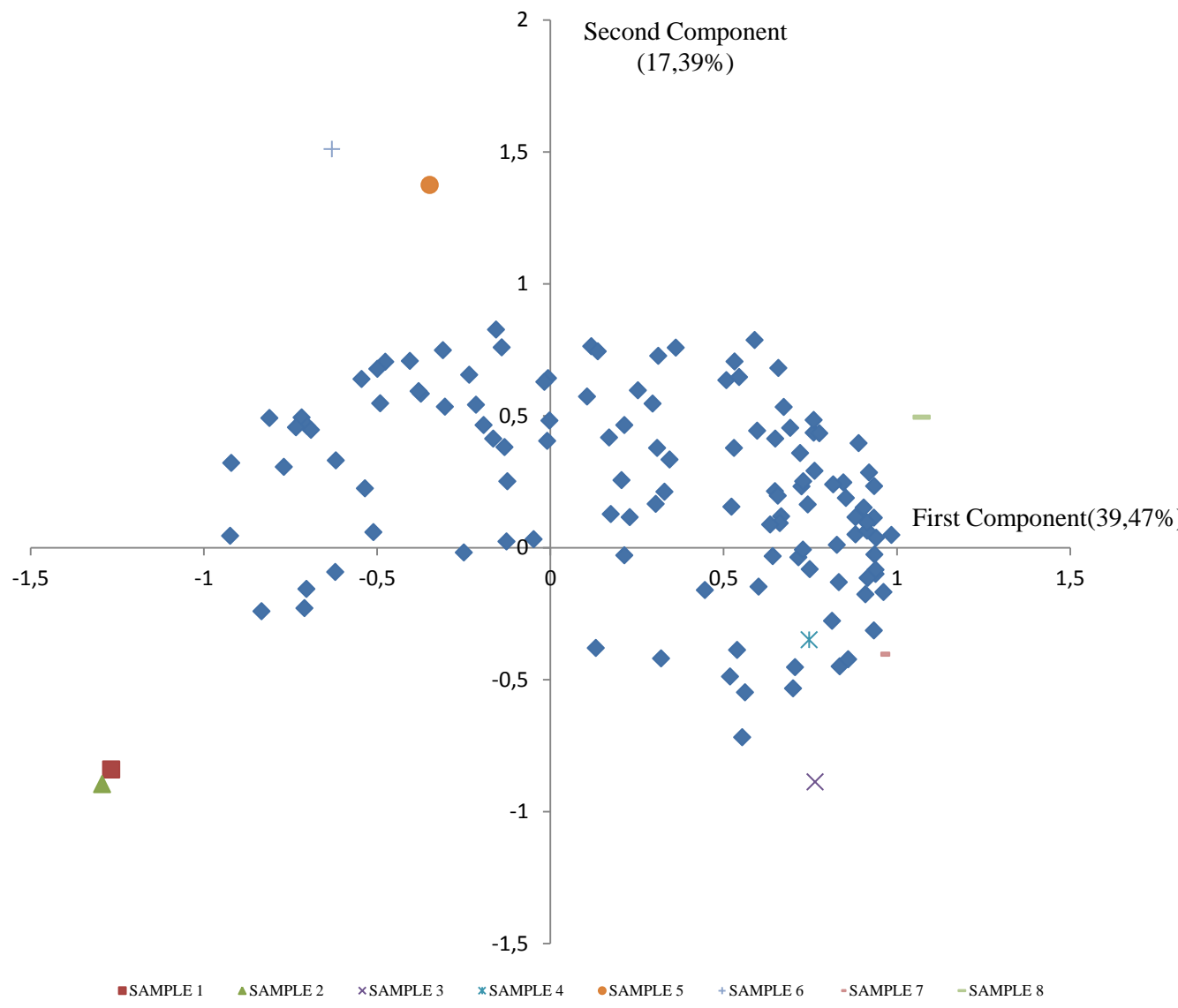


Figure 4 . Principal component analysis.

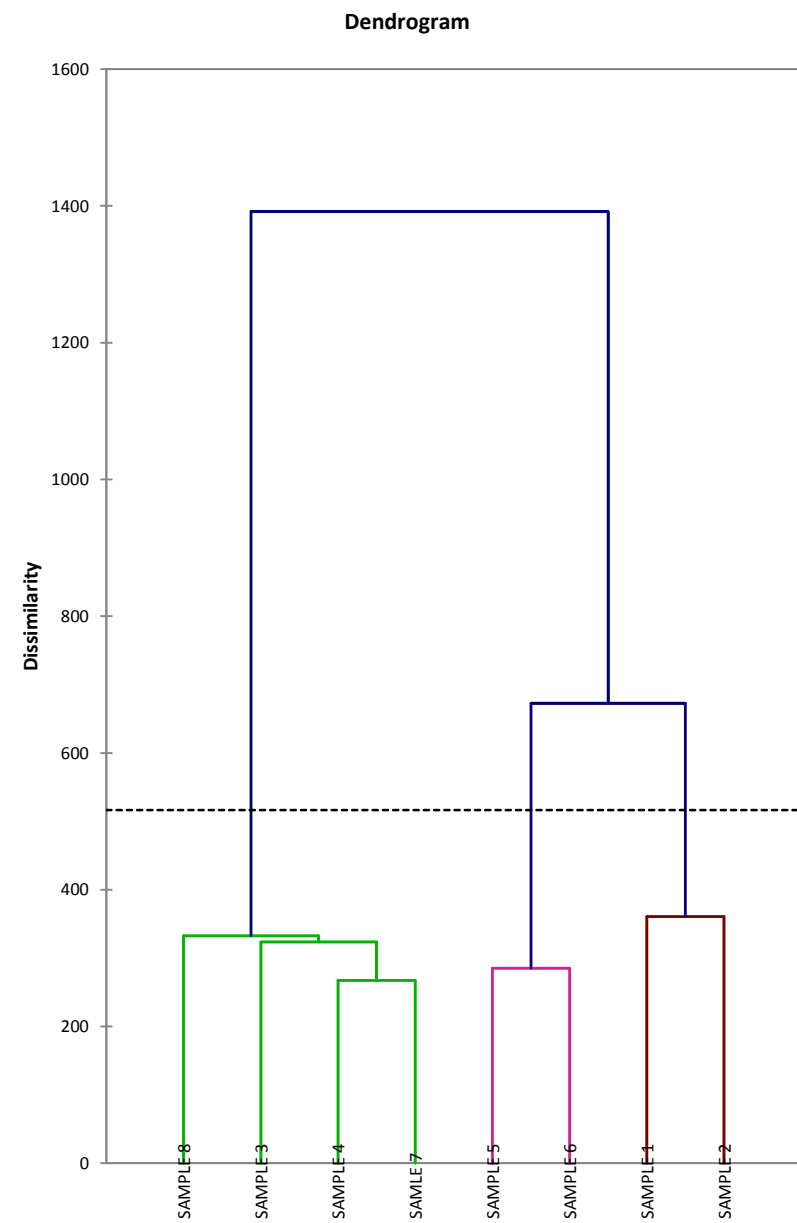


Figure 5. Dendrogram of agglomerative hierarchical cluster analysis.

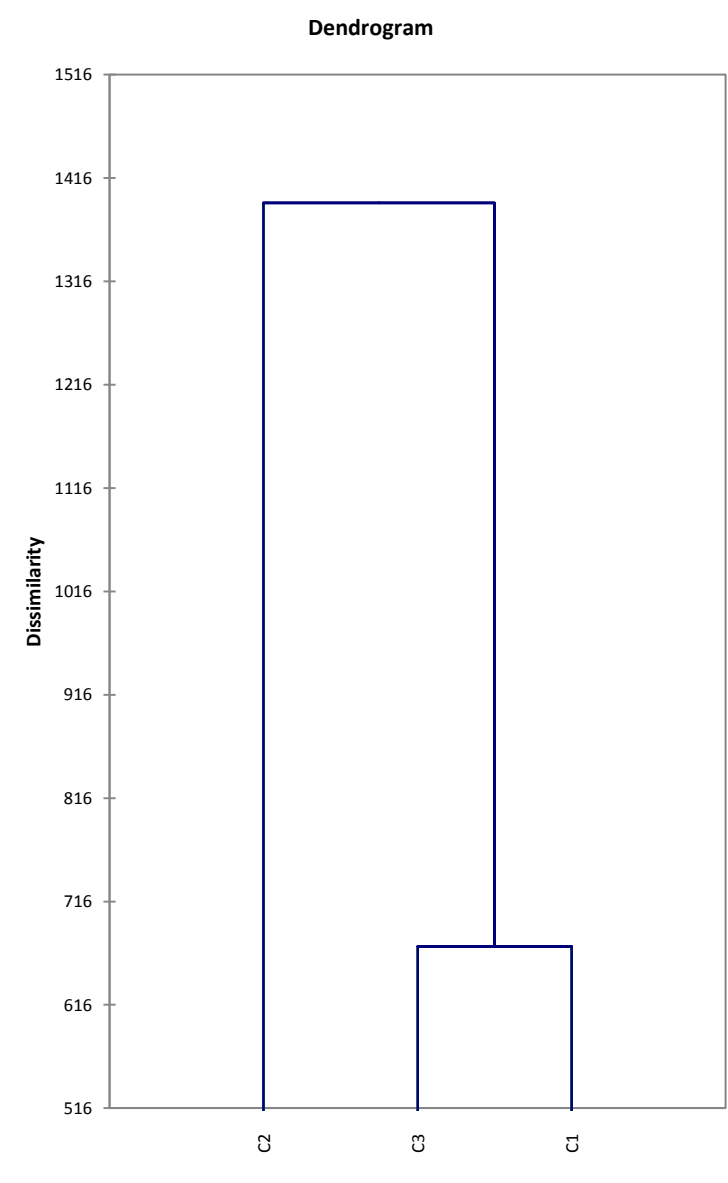


Figure 6. Clusters AHC.

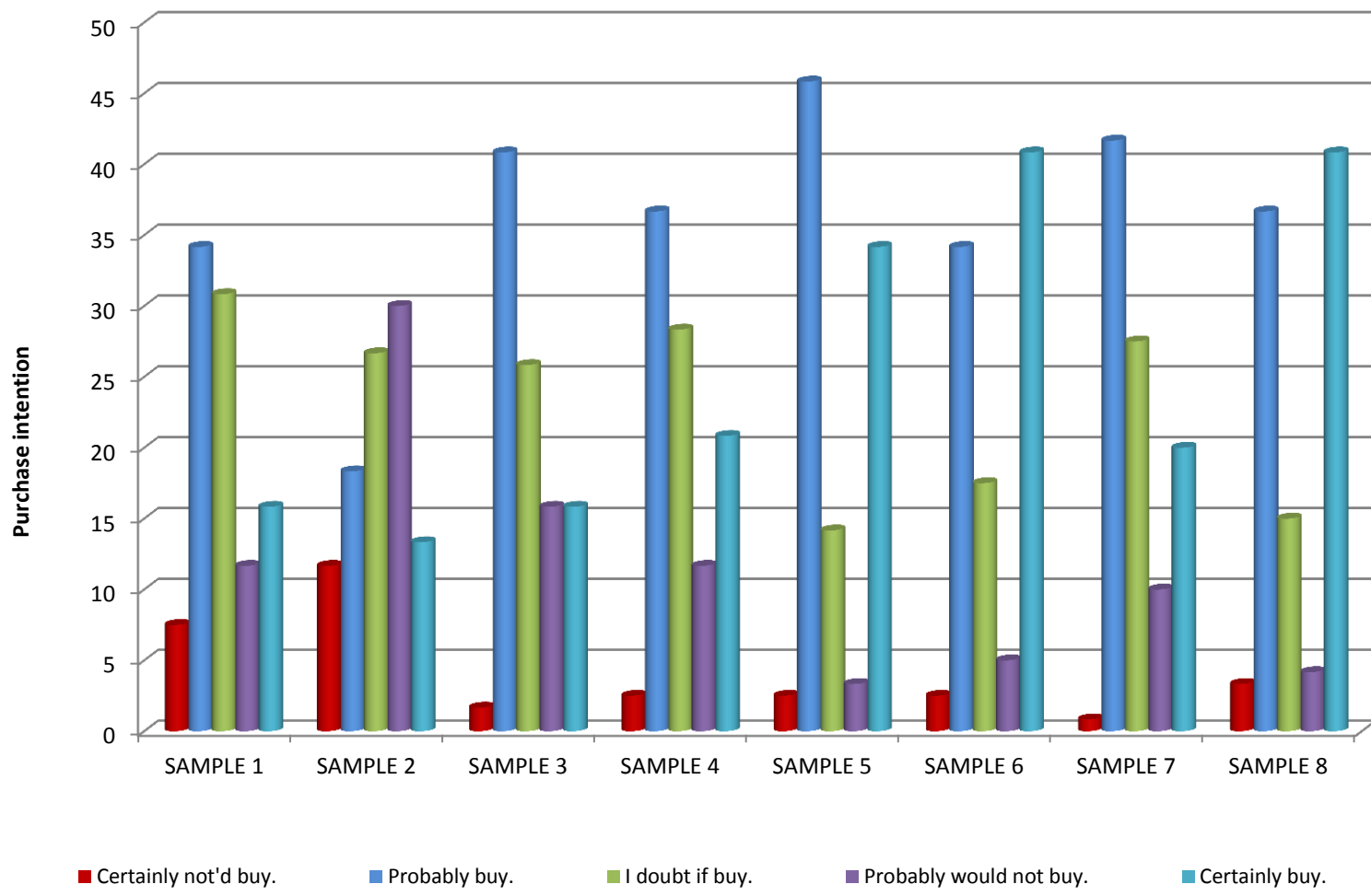


Figure 7. Histogram OF Purchase intention frequency.

CONCLUSIONS

The results shown tree segmentation of preferences, revealing a well-defined differentiation of preferences of consumer to three distinct types of commercial international brands of chewing gum mint flavor, each one with different sensory characteristics.