Evaluation of selected pistachios with regard to sensory and conceptual properties

1. Introduction

P-Stash is a young Start-Up from Berlin, that sells pistachios with innovative flavors. Their innovative Persian Akbari pistachios from Iran are handmade in Berlin and are considered as Superfood. The packaging is sustainable and functional, because the lid is simultaneously the container for die nutshells.

P-Stash has three different flavors:

Persian Bluesalt, Mint-Lemon and Chili-Orange.

The project team’s task was to investigate how the sensory attributes of the products are evaluated by consumers and how the marketing concept affects the liking of the products.

2. Main Objectives

The goal of examination was to judge the sensory attributes of the innovative pistachio tastes. The examination was separated in two phases:

**Blind Test:**
- In the first phase the product names were defaced for the testing persons.
- The products should be judged by sensory attributes like appearance, smell, haptic, taste and aftertaste independent of brand influences.
- The test included three innovative pistachio tastes which were ought to be paid was captured by the survey.
- To neutralise their sensory perception the probands were requested to drink water and eat bread between each sample.

**Combined Concept & Product Test:**
- In the second phase of the test the probands got detailed information about the sensory and conceptual attributes of the products. Afterwards the probands got detailed information about the sensory and conceptual attributes of the products.
- The aftertaste concept-specific attributes as well as appearance, smell, haptic, taste and aftertaste.
- In addition the willingness to pay was captured by the survey.

3. Test Design

The examination was realized in the sensory laboratory of the University of Applied Sciences Nordhausen. The different encoded pistachio tastes were tested by approx. 200 individuals. The procedure was structured by a balanced experimental design. To create a realistic testing situation, a set of five pistachios was presented to the probands. To neutralise their sensory perception the probands were requested to drink water and eat bread between each sample.

**Blind test:**
- Testing of the sample
- Liking of the sensory attributes

**Combined Concept & Product Test:**
- Testing of the sample
- Liking of the sensory attributes
- Liking of the product-concept fit

4. Key Findings

**Comparison of Blind and Combined Concept & Product Test**

The overall rating in the concept test is significantly better than the rating in the blind test. The biggest influence can be recognized at “Persian Blue Salt”.

**Comparison of the Ratings between the P-Stash Products**

“Persian Blue Salt” got the best ratings in the Combined Concept & Product Test. In particular the taste was rated good.

**Influence of the sensory Dimensions on the Overall Rating**

Taste and aftertaste have the highest influence on the overall rating. 47% of the overall rating can be explained by the rating of the taste. This was calculated by doing a stepwise regression analyses and transferring the results.

5. Conclusion/Discussion

In comparison of both tests it was shown that knowing the concept has a big influence on the sensory judgement. Looking separately at the concept attributes, especially the high packaging got appreciated. Without knowing the concept, the taste “Persian Blue Salt” was rated significantly worse in nearly every sensory dimension compared the competing products. The innovative tastes “Mint-Lemon” and “Chili-Orange” are polarizing the most. Most recommendable for the future is to focus on the concept-communication with regard to the credibility of the brand P-Stash towards the LOHAS target group. The brand power could be used to bring out other similar products. In addition the sensory quality should be improved as far as it is possible with natural products.