Nordhausen

## Innovation effect - Evaluation of chocolates with regard to sensory and conceptual properties

## MASTERCOURSE ,INNOVATION AND CHANGE MANAGEMENT‘

R. Bredehorn | J. Feise | N. Hodaib | B. Köhler | M. Kellert | N. Lepczynska
J. Rose | S. Paul | N. Schwarze | M. Sommerfeld | M. Waldhauer | S. Wieskus S. Glassl|A. Scharf

## 1. Introduction

During the conventional cocoa production process, the cocoa beans are fermented for flavor development immediately after harvesting. Therefore fresh and moist cocoa beans are subjected to fermentation for about one week. Valrhona developed an innovative production process. When the first fermentation period is completed and the initial aromas are unveiled, different fruits are added into the boxes of cocoa beans to initiate a second phase of fermentation before drying the beans.


Thanks to this innovative process Valrhona developed three new chocolates.
$\quad$ Kidavoa
cocoa
content:
$50 \%$
origin:
Madagascar
Profile:

- combining fine
Madagascan cocoa with
dried bananas
- milk chocolate which
offers fruity, spicy, malted
and cocoa notes
- a pleasantly bittersweet
finish

| Mananka |
| :--- |
| cocoa |
| content: |
| $62 \%$ |



- pure Brazilian flavour - fruity aromas which little by little gives way to rounded notes of cocoa - symbiosis of passion fruits \& cocoa


## 2. Main Objectives

The current research approach aims to evaluate the reaction of consumers to these new chocolates regarding to perception of novelty, reward/ pleasure of novelty and assessment of individual sensory dimensions.
The question is: If consumers have been informed about the innovative manufacturing process, does it effect the evaluation of the products?

## 3. Test Design

| Part | Objectives |  |  |
| :---: | :---: | :---: | :---: |
| (1) Blind test | Consumers overall liking concerning different sensory dimensions (appearance, flavor, aftertaste, intensity of sweetness, intensity of taste etc.) shall be measured. Furthermore a "forced choice" test is used to determine spontaneous associations with the product. |  |  |
| (2) Combined test | The "concept test" is characterised by presenting the manufacturing process and the concept before handing over the sample. The spontaneous favour of the concept should be measured as well as the preferred concept. In addition the "Gabor Granger" price test is used for the preferred concept. |  |  |
|  | Blind test no product information |  |  |
| Presenting of the concept and the manufacturing process | Testing of the sample | Evaluation of the sample | Decision if stimulus fits for the sample |
|  |  |  |  |
| Combined test with product information |  |  |  |

## 4. Key findings

## Comparison between blind and combined test



Blind test - Associations


Concept test - Associations


## 5. Conclusion/Discussion

For a successful market launch, it is highly recommended that the concept of the production process and the flavouring components should be communicated in detail to potential consumers. Due to the diversity of the products, all three chocolate varieties are worthy of a market launch.

The direct comparison between Itakuja, Kidavoa \& Mananka indicates that Itakuja is the chocolate with the highest market attractiveness. Test persons have the highest willingness to pay for the product Itakuja. The new product procedure allows Valrhona to create a niche market by selling chocolate with a fruity taste while containing no fructose. In short-term, the company should maintain their distribution channels. Further, in the medium-term, the focus should be on expanding cooperation arrangements with gourmet-stores. For the long-term, Valrhona should establish the distribution via its own branch network at attractive and exclusive locations.

