



---

**Indonesian consumers' perception of tempe in a restaurant setting traditional and modern tempe version in traditional and innovative dishes**

Fibri, Dwi Larasatie Nur; Frøst, Michael Bom

*Publication date:*  
2017

*Document version*  
Publisher's PDF, also known as Version of record

*Citation for published version (APA):*  
Fibri, D. L. N., & Frøst, M. B. (2017). *Indonesian consumers' perception of tempe in a restaurant setting traditional and modern tempe version in traditional and innovative dishes*. Poster session presented at 12th Pangborn Sensory Science Symposium, Providence, United States.

# Indonesian consumers' perception of tempe in a restaurant setting – traditional and modern tempe version in traditional and innovative dishes

Fibri, Dwi Larasatie Nur\*<sup>1,2</sup>; Frøst, Michael Bom<sup>2</sup>

\*Presenting and corresponding author ([dwi@food.ku.dk](mailto:dwi@food.ku.dk))

<sup>1</sup>Department of Food and Agricultural Product Technology, Faculty of Agricultural Technology, Universitas Gadjah Mada, Jl. Flora, Bulaksumur 55281, Yogyakarta, Indonesia;

<sup>2</sup>Nordic Food Lab, Department of Food Science, Faculty of LIFE sciences, University of Copenhagen, Rolighedsvej 26, DK-1958 Frederiksberg, Denmark

## Introduction

High consumption of imported soybean tempe has several negative effects to Indonesian such as loss of diversity in food, trade balance etc. To promote the use of local beans, it is beneficial to increase the value perception of tempe by introducing local bean tempe in a fine dining context.

It has been reported that innovation in the cuisine, such as a molecular kitchens increase tourism income (1) and presentation of the dish in the restaurant increase the liking (2). However, in consumer point of view, they prefer foods that have at least some elements of familiarity (2).

The objective of this research was to study how different raw materials, dishes and gastronomic style affect the perception and appreciation of the food in a restaurant setting experiment.

## Materials and methods

A restaurant experiment (n=208) was carried out. Three different types of tempe were prepared in two styles (traditional and innovative) and presented in three different types of dish (appetizer, main course, and dessert). Dishes were presented with all relevant information relating to the food.

Diners' perception of the following variables was collected: **hedonic, collative properties** (familiarity, novelty, complexity, surprise, interesting, curious, desire to eat again, appropriateness, and authenticity). ANOVA were conducted in SPSS 24.

## Results and discussion

- Gastronomic style and type of dish have an effect on the hedonic and collative properties of the dishes significantly (p-value < 0.05) which proves the design to be successful, as these factors were intended to be different.
- The type of tempe significantly affect the perception of novelty, complexity, surprise and authenticity of the main dish. In Indonesian cuisine, tempe is usually consumed as part of the main dish. This may partly explain why it affect these collative properties.
- The gastronomic style and the type of dishes can be used in the design of new dishes to increase the value of local bean tempe.

## References

1. Tüzükan, D., & Albayrak, A. (2015). Research about Molecular Cuisine Application as an Innovation Example in Istanbul Restaurants. *Procedia - Social and Behavioral Sciences*, 195, 446–452. <http://doi.org/10.1016/j.sbspro.2015.06.487>
2. Mielby, L. H., & Frøst, M. B. (2010). Expectations and surprise in a molecular gastronomic meal. *Food Quality and Preference*, 21(2), 213–224. <http://doi.org/10.1016/j.foodqual.2009.09.005>

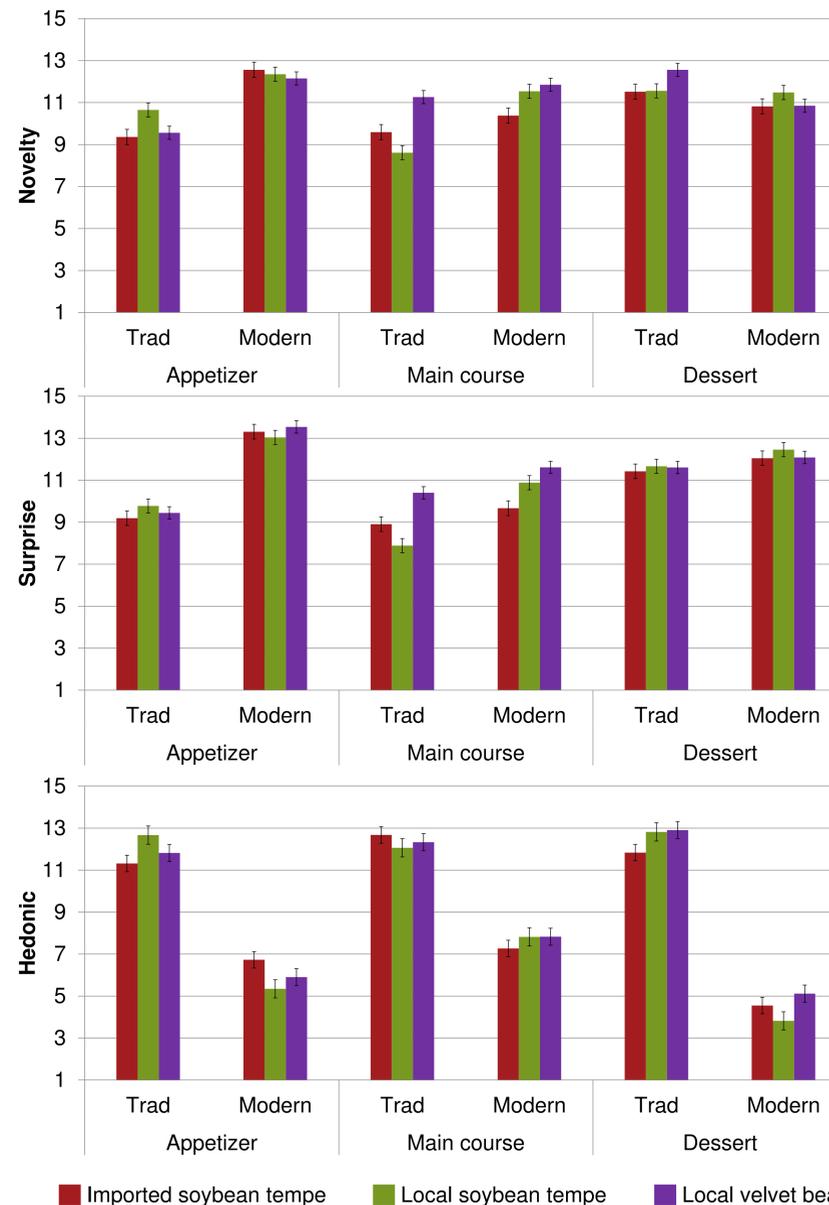


Figure 1. Mean of eighteen dishes on novelty, surprise and hedonic perception. The error bar determines 95% confidence interval

### Traditional appetizer



Spring roll filled with tempe (from local soybean / imported soybean/velvet bean), veggies, seaweed, and cheese.

### Modern appetizer



Tempeto (from local soybean / imported soybean / velvet bean) in arrow root chip; wild basil leaves, toddy palm seeds, and pigeonwing flower; and with bitter bean.

### Traditional main course



Sate tempe (from local soybean / imported soybean / velvet bean) with spices, presented with rice cake, kering tempe and tempe chips from the same tempe.

### Modern main course



Fried mashed-rice-cake (made in coconut leaves) with tempeto sauce (from local soybean / imported soybean / velvet bean), ginseng leaves, and chilli emulsion.

### Traditional dessert



Onde-onde with tempe filling (from local soybean / imported soybean / velvet bean) and es campur with tempe pudding and spiced poached tempe.

### Modern dessert



Tempeto (from local soybean / imported soybean / velvet bean) with zalacca (snake fruit) juice, lime juice, lemon basil seed, fern leaves, and basil leaves.

This research was done in collaboration between:



Universitas Gadjah Mada



Gajah Wong Restaurant



Nordic Food Lab



University of Copenhagen

### Acknowledgement

This study was supported by Directorate General of Higher Education, Ministry of Research, Technology, and Higher Education, Republic of Indonesia (contract no. 1109.1/E4.4/K/2014).