## Tempeh as a Cultural Heritage in Indonesia: Intergenerational Perception

Khoirul Anwar<sup>1,2\*</sup>, Dadi H. Maskar<sup>1,2</sup>, Irene Nuariza Prasetyo<sup>1</sup>, Intan Kusumawati<sup>2</sup>

<sup>1</sup>Nutrition Study Program, Faculty of Food Technology and Health, Sahid University,

South Jakarta 12870, Indonesia

<sup>2</sup>Indonesia Tempe Forum, Bogor 16123, Indonesia

#### ABSTRACT

This study aimed to assess how people perceive tempeh. The study was conducted using an online self-administered questionnaire among 340 respondents aged between 11 and 58 years. The results showed that respondents perceived tempeh as an Indonesian cultural food (97.70%), a highly nutritious food (99.41%), and a superfood (86.47%), and 51.76% of respondents consumed 50 g of tempeh daily. Most respondents perceived tempeh to have economic impact (91.7%) and used it as a food for celebrations (95.29%), and there was no significant differences between generations (p<0.05). The conclusion is that tempeh is perceived as an Indonesian cultural food that has cultural, economic, and nutritional value.

Keywords: culture, generations, Indonesia, tempeh

#### INTRODUCTION

Tempeh is a cultural food of Indonesia that has been a cultural heritage since ancient time. It has evolved from the traditional tempeh making, rituals, and gastronomy in the lives of the Javanese people. Tempeh is traditionally made simply by fermenting legumes, in this case soybeans, with natural yeast, locally known as "laru" or "usar", containing *Rhizopus spp.* (Aryanta 2020; Romulo & Surya 2021), making it a source of vegetable protein. Indonesia has several types of production methods for tempeh, which result in different characteristics of tempe (Astawan et al. 2013). Currently, many studies have shown that tempeh has many health benefits and is a source of protein, isoflavones, vitamin B12, and calcium (Astawan et al. 2013). Tempeh also has economic benefits for the society (Taimenas & Falo 2017). Thus, this study was conducted to analyze the intergenerational perception of tempeh as a cultural heritage in Indonesia.

#### **METHODS**

This study used a cross-sectional design and was conducted using an online self-administered questionnaire among 340 respondents between the ages of 11 and 58 years from August to September 2022. The data collected were primary sample data obtained through online questionnaire completion. Some

of the variables asked included: 1) subject characteristics (age, gender); 2) education; 3) knowledge about tempeh (cultural value, nutritional content, superfood status); 4) economic perceptions (economic impact); 5) cultural perceptions (tempeh as cultural heritage, cultural preservation, pride in tempeh); and 6) frequency of tempeh consumption (amount of serving). The primary data obtained were then statistically analyzed. The stages of data processing began with coding, continued with data entry, cleaning and then analysis. The data were processed using the Microsoft Excel 2019 computer program, and then analyzed descriptively and inferentially (p<0.05). The descriptive analysis was expressed in the form of percentages and averages.

#### RESULTS AND DISCUSSION

The characteristics of the respondents in this study were categorized into three age groups: Gen Z with an age range of 11–26 years (43.24%), Millennials with an age range of 27–42 years (38.53%), and Gen X with an age range of 43–58 years (18.24%). The majority of respondents in this study were dominated by female with a percentage of 77.06%. The percentage of respondents with tertiary level of education was 79.71% (Table 1).

The results showed that respondents' perspectives of tempeh were divided into three components: general cultural food, healthy food,

\*Corresponding Author: tel: +6285716759791, email: khoirulgizi2016@gmail.com (Received 03-07-2023; Revised 28-07-2023; Accepted 22-08-2023; Published 30-12-2023)
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Table 1. Distribution of respondent characteristics

	Variable*	n	%
Age			
	Gen Z (11–26 year)	147	43.24
	Millenials (27–42 year)	131	38.53
	Gen X (43–58 year)	62	18.24
Gender			
	Male	78	22.94
	Female	262	77.06
Education level			
	College	271	79.71
	Senior High School	67	19.70
	Junior High School	2	0.59

and usage of tempeh (Figure 1). The cultural food perception component consisted of the perception of tempeh as Indonesian cultural food (97.70%), pride in tempeh (94.41%), and the need to preserve tempeh culturally (97.94%). This showed that tempe has become a part of the lives of the Indonesian people and has been a traditional cultural food for a long time (Alvina & Hamdani 2019). The preservation of tempeh

as a cultural heritage is necessary to maintain the continuity of culture in a sustainable way. The healthy food component consisted of tempeh being perceived as a highly nutritious food (99.41%) and a superfood (86.47%), and most respondents (51.76%) consumed two to three pieces of tempeh per day, with two pieces being eaten at a time (50 g). These results indicate that the respondents understand tempeh as a nutritious food, and are in line with the results of the study by Astawan et al. (2013), which showed that tempeh contains many types of nutrients that are beneficial for health. The component of tempeh usage consisted of its economic impact on society (91.76%), knowledge of how to produce tempeh (89.41%), and use of tempeh in celebrations (95.29%). These results indicate that respondents agree that tempeh also has economic benefits for the community, especially for those involved in the process of making, buying, and selling tempeh (Naelis & Novindra 2015; Taimenas & Falo 2017). There were no significant differences in the perception of tempeh as a cultural heritage among respondents across generations (p<0.05).

#### CONCLUSION

Tempeh as an Indonesian cultural food has many functions that are cultural, economic, and nutritional. The perception of tempeh as a cultural heritage does not differ between generations. Further research is needed on a wider age range as an effort to preserve tempeh culturally in Indonesia.

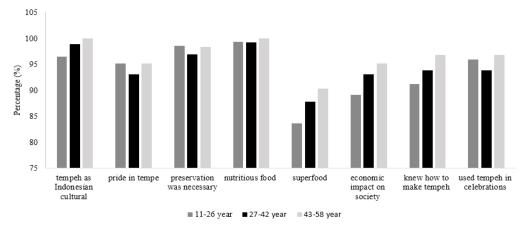


Figure 1. Inter-generation perspectives on tempeh culture in Indonesia

# DECLARATION OF CONFLICT OF INTERESTS

The authors have no conflict of interest in the preparation of the manuscript.

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