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EXPLORING FOOD PREFERENCES ACROSS GENERATIONS: INSIGHTS FROM APPSHEET DATA ANALYSIS

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Abstract

The purpose of this study illustrates the process of creating Appsheet about food habits from their parents who can provide insight into the dynamics of behaviors related to nutritional intake across generations. The method in this study uses the Design Thinking method. There are 5 steps in this study, namely: empathize, define, ideate, prototype, and test. The results show that the media application about food gastronomy developed emits an exceptionally good category based on media validation and content. Because it can be seen from the appearance of the question content described in the Appsheet media about the detailed gastronomy including the pattern of consumption related to nutrition from different generations. Recommendations for further research suggest that this AppSheet media be tested more broadly across various generations and in the field of education, with the hope of making it more effective in identifying different generational consumption patterns, thereby fostering awareness of cultural preservation as a national identity.

Keywords: AppSheet, Across generation, Food gastonomy, Food preferences, Nutritional.

1. Introduction

Knowledge of how food preferences vary between generational groups is a prerequisite for effective nutrition education and healthful eating. A multitude of research has investigated the factors that shape food preferences, including genetic, environmental, and social influences [1, 2]. This integrated research is intended to outline intergenerational dynamics relative to food preferences using data extracted from the AppSheet platform.

To begin with, according to most studies, genetic predispositions have been found to markedly have an influence on food preferences, primarily during childhood and adolescence [3, 4]. Along with this, social factors also have dominant impact on them.

Research has demonstrated that infants and toddlers use food preferences to evaluate social relationships by associating the preferences with people who share a common language or culture [5]. The COVID-19 pandemic has also altered food consumption behavior, where various age groups have reported a change in preference and choice [6, 7].

Table 1 shows several articles discussing food preferences and their relationship with generations of society. From the existing studies, it shows that the discussion of this theme is currently being widely discussed and researched from various perspectives to help shape a healthier society that cares about its eating patterns.

The aim of the current study is to position AppSheet as a means of collecting data related to food preferences among various generational cohorts, which are examined based on various influencing factors. The design thinking approach for the development of AppSheet is the method used in the current study. The novel contributions of the present study are: (i) determining factors that affect food preferences; (ii) using AppSheet for collecting data; and (iii) generating results that can help determine better eating patterns.

Table 1. Literature review of food preference and across generation.

No.	Title	Ref.
1	Do culinary preferences vary across generations? Yogyakarta experiences	[8]
2	Differences in opinion on healthy and junk food between generation Y and generation Z	[9]
3	Food-related lifestyles across generations	[10]
4	The food identity of countries differs between younger and older generations: a cross-sectional study in American, European, and Asian countries.	[11]
5	Healthy and quality food attitudes and lifestyle: a generational cohort comparison	[12]
6	Balanced eating between food and healthy food for better nutritional needs	[13]
7	Low-carbon food consumption for solving climate change mitigation: Literature review with bibliometric and simple calculation application for cultivating sustainability consciousness in facing sustainable development goals (SDGs)	[14]
8	Flipbook table setup as teaching media in the food and beverage service course	[15]

Table 1(Continue). Literature review of food preference and across generation.

No.	Title	Ref.
9	Rural-urban migration among women farmers: Science education, survey, and implication for food crop production in Cross River State, Nigeria.	[16]
10	Learning abilities of students with intellectual disabilities for cooking Indonesian traditional food "opak bakar": From step by step experiment to the analysis	[17]
11	The influence of environmentally friendly packaging on consumer interest in implementing zero waste in the food industry to meet sustainable development goals (SDGs)	[18]
12	Smart packaging innovation for food: Enhancing shelf life and quality of perishable goods	[19]
13	Trend analysis of eco-friendly food packaging among street vendors: A case study in Gegerkalong street, Bandung, Indonesia	[20]
14	Food security strategy through regenerative agriculture for capacity building of farmers with "integrated nutrient management training program".	[21]
15	Culinary tradition of cassava rice in indigenous villages Cireundeu, Cimahi, Indonesia as food security heritage in the era of gastro colonialism.	[22]

2. Literature Review

Food preferences and aversions are culture-bound [23, 24]. They may be the result of social, cultural, and biological influences. Infants can recognize shared food likes/dislikes between groups [25]. Environmental factors like marketing and availability also play a role in preferences [26, 27]. Access to culturally preferred foods influences individual and community food preferences [28, 29]. A number of studies have suggested that childhood food preferences can persist into adulthood, indicating a certain level of stability over time [30].

However, preferences do change considerably during adolescence and adulthood as a result of dietary shifts, weight loss, and neurobiological changes [31]. Figure 1 shows that food preferences are the result of a complex interplay between biological, social, and environmental factors, and they can undergo significant changes across lifespan of individual and across generations. Each factor is going to be described in several ways.

AppSheet is a no-code development platform that empowers non-developers to create custom applications tailored to their specific organizational needs [32]. It enables users to autonomously design intelligent actions and interfaces without the need for extensive programming skills [33].

3. Method

This study employs the design thinking method, which consists of the following steps: Empathize, Define, Ideate, Prototype, Test, Iterate, and Implement. The first stage, Empathize, is conducted to understand the problems, needs, and challenges. The Define phase involves formulating the problem to be addressed. This is followed by the Ideate stage, where potential solutions are brainstormed, and the design process begins using AppSheet to create questions based on the insights

from the previous stage. In the Prototype phase, an application is developed using AppSheet. The Test phase involves evaluating the prototype to ensure it meets the intended requirements. During the Iterate stage, improvements and refinements are made to the application based on feedback from the testing phase, if necessary. Finally, the process concludes with the Implement phase, where the AppSheet application is deployed to collect the required information.

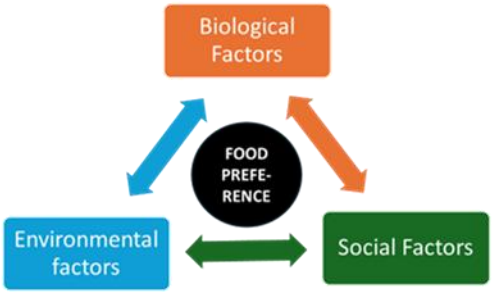

Fig. 1. Factors of food preference.

4. Results and Discussion

Figure 2 illustrates these aspects or factors involved in evaluating food preferences. This issue is complex and can be categorized into three main factors. During the Define stage, these three factors are further detailed into nine aspects that influence food preferences. The nine aspects are: Health, Natural Content, Sensory Appeal, Weight Control, Familiarity, Mood, Religion, Price, and Convenience.

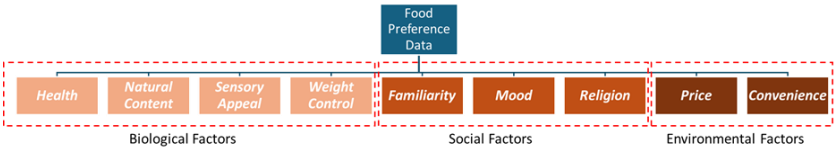

Fig. 1. Food preference data.

Figure 3 shows the process at the Ideate and Prototype stages, where the AppSheet creation flow begins with collecting personal data. After that, it starts to enter the menu that displays the core of several questions from 9 aspects that must be filled in by the respondent. If the respondent has filled in all of them, the input results are then saved and collected as a data sheet in the cloud. If it is not complete, the respondent is going to be asked to complete the answer. The data collected is then used to evaluate food preferences according to generation groups.

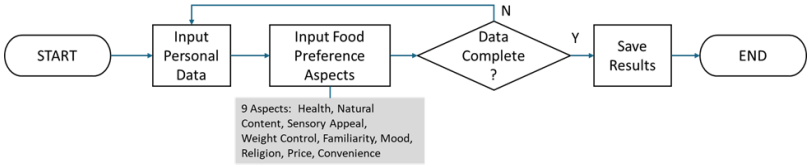

Fig. 2. Flowchart.

Following the development of the AppSheet prototype, a test of the application functionality was conducted. This app was developed to survey the food preferences of people. First, the respondents are going to be required to input their own data. Figure 4 appears on the AppSheet application of food preferences to a mobile phone. The first step that the student is going to be asked to complete is to fill in this his/her personal data. Some of the questions are related to personal data, e.g. age, sex, area of residence, campus of origin, mode of transportation used, electronic communication devices owned.

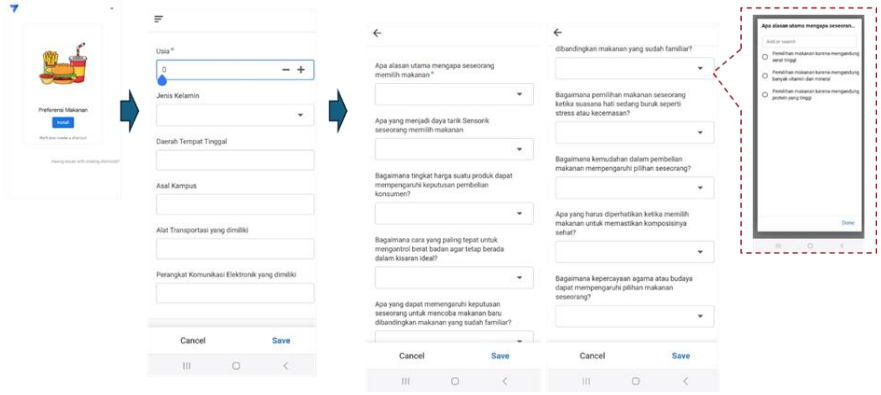

Fig. 4. Example of AppSheet food preferences display using a mobile phone.

This personal data is important to be used later in relation to food preferences with variables such as respondent generation groups, gender influences, regional origin, respondent welfare level, education level, and how much respondents can get information related to food types. Each of these variables is part of analyzing food preferences chosen by each respondent. Once the personal data has been filled in, the respondent can click the save button to save the data and enter the next filling form, namely data preferences.

The form for personal data is first filled, after which comes the food preference form. The food preference form is to be filled once all personal data has been entered. Figure 4, a food preference form is showing nine questions that are to reflect various aspects affecting the food preference. The nine aspects are Health, Natural Content, Sensory Appeal, Weight Control, Familiarity, Mood, Religion, Price and Comfort. Respondents choose from among the available answer options, representing the majority responses. Multiple choices make responding easy and allow for easy analysis later.

Once the respondents have completed the food preference form, they should save it. The data is saved in the cloud and can be accessed anywhere in a spreadsheet format, compatible with MS-Excel or Google Sheets. All data is kept in one database. This is one of the advantages of AppSheet, wherein data can be collected in real time in the cloud and can be accessed from anywhere with an internet connection.

Another advantage of using AppSheet is that this application can be run using various electronic media, be it mobile phones, tablets, or desktops. This application runs on various browsers such as Edge, Firefox, or Safari with various operating

system platforms, such as Android, Windows, or IOS. The AppSheet application itself is an application that can be downloaded for free.

The next stage is the iterate stage, where improvements are made based on feedback from the results of prototype testing. If the improvements made are in accordance with expectations, then it can enter the implementation stage. This AppSheet is distributed to various respondents to obtain information related to food preferences.

Intergenerational differences can be very informative about food preferences relevant to the respective generations in the context of food-related lifestyles [31]. Although intergenerational differences in food preferences are well marked, it is equally necessary to consider intergenerational influences and the continuity of eating behaviors. Family environment, cultural contexts, and early socialization contribute to food choices, which implies that preferences might change, but the underlying influences remain the same across generations [32]. The intuitive interface of the platform, combined with its integration with Google Sheets and other cloud services, really makes it an indispensable tool in creating customized applications like one for gathering information on food preferences across different generations [30].

5. Conclusions

Food preferences can be seen from nine aspects, namely: Health, Natural Content, Sensory Appeal, Weight Control, Familiarity, Mood, Religion, Price, and Convenience. The AppSheet application can be used as a means to collect information related to food preferences by looking at respondents consisting of various generations. This AppSheet has the advantage that data can be immediately synchronized and stored as a database in the cloud.

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