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Cost-Driven strategies in consumer food behavior during global economic turmoil evidence from Taiwan

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Abstract—This study examines how rising food and energy prices, influenced by the Ukraine war and global instability, impact the dietary habits of Taiwanese consumers. Building on Grunert et al. (2023), which showed 81% of European consumers altered their food choices due to inflation, we explore whether Taiwanese consumers are becoming more price-conscious while prioritizing health and sustainability. Our findings indicate that taste remains a primary focus despite inflation, with increased attention to food quality, packaging, and local products, especially among women and younger consumers. This research offers valuable insights for food producers and retailers navigating contemporary consumer needs.

Keywords---Consumer habits, Economic crisis, Food choice behavior, Inflation, Taiwan, Ukraine war

Introduction

Evidence suggests that war and conflict are major drivers of global food insecurity (FAO, 2022). The timing of the Ukraine war could not have been worse for global food markets, as prices were already high due to COVID-19-related supply chain disruptions, strong global demand, drought, and poor harvests in South America

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the year before. These factors converged to drive food prices to record highs at an unprecedented rate. The conflict between Russia and Ukraine is likely to further worsen these issues (Rice et al., 2022). The war has driven up the prices of commodities such as grains and energy, adding further pressure to global inflation. As the war intertwines with other disruptive factors (supply chain tensions, inflation, and the pandemic), it now poses an urgent, existential threat to our global food supply system.

Grunert et al. (2021), in a study of ten European countries, found that consumers cooked more meals at home and notably increased their online purchases of food and ready-to-eat meals, and participated more in meal preparation, choosing to dine at home with family more often. For some consumers, this led to a more cautious and vigilant attitude towards food choices.

Grunert et al. (2023) conducted a study on food-related consumer behavior changes across ten European countries. The study revealed that 81% of consumers changed their food-related behaviors following the Ukraine war and subsequent price increases. The most widespread changes included heightened price sensitivity with 32% of consumers reporting more cautious about choosing healthy foods compared to pre-COVID-19 times. The study also indicated that in addition to increased price sensitivity, consumers became more attentive to label information, closely examining date labels and the presence of additives, preferred local foods, reduced snack purchases, and decreased the use of ready-to-eat foods. However, 12% of consumers, mostly young males from Greece and Poland, preferred convenient ready-to-eat meals that could be quickly and easily prepared and enjoyed, emphasizing the enjoyment of delicious meals and the pleasure of dining (Grunert et al., 2021).

The pandemic, war, and inflation continue to cast a heavy shadow on consumer food choices and consumption behaviors, creating an environment of uncertainty. Inflation has led to significant social changes. The severity of the impact of rising prices varies among countries, influenced by different national policies, which also affect consumer dietary habits.

However, we are not aware of any studies that investigated the impact of high inflation rates and rising food prices in 2022 and 2023 on Taiwanese consumer dietary habits. This study aims to answer the following question. How do rising food and energy prices, within the context of global environmental instability, affect the food choices of Taiwanese consumers?

Taiwan's unique environment, with over 90% reliance on imports (Xuan, 2022), makes Taiwanese consumers highly susceptible to the effects of imported food and energy supplies. Based on the above points, this study focuses on Taiwanese consumers to understand how they perceive price increases related to the Ukraine war and what strategies they adopt in their food choices. In other words, the research covers 1. whether Taiwanese consumers are more price-conscious than before, 2. whether they exhibit more cautious attitudes in food selection and consumption patterns, 3. whether they align with EU-driven policies for promoting green transformation in the food industry, 4. whether they are more interested in healthier foods, and 5. whether the demand for sustainably

produced foods is increasing. Organic goods, locally produced goods, and fair trade-certified items are alternative foods that emphasize sustainability in recent years, although they come at higher prices compared to regular consumer foods.

Our study reveals that during the recent period of inflation, taste becomes a top priority for Taiwan consumers as they seek to enjoy good food despite limited resources. Aligned with the findings of Grunert et al. (2023) and Shorr (2022), this study also shows that checking packaging and expiration dates helps ensure food freshness and prevent spoilage. Following the war in Ukraine and rising prices, consumers have become more focused on food labeling and expiration dates. Additionally, the preference for locally produced food may be driven by a desire to support the local economy and sustainability, echoing findings from Figueiredo et al. (2022). Environmental awareness also influences preferences, with consumers favoring unpackaged or recyclable/biodegradable packaging, consistent with d'Astous and Labrecque (2021), who found that eco-friendly packaging enhances perceptions of product quality.

The study also highlights that consumers, particularly women, are increasingly concerned with food quality, hygiene, and health; often avoiding foods with artificial additives or preservatives to ensure safety. Women show a strong preference for local products and environmentally friendly packaging, with an emphasis on diet control and low-calorie foods to maintain health and weight.

Young people, corporate employees, highly educated individuals, and low-income respondents are particularly focused on food quality and health factors during inflation, likely due to concerns about their own well-being and overall life satisfaction. Young people prioritize taste and the experience of enjoying food, while low-income individuals, despite financial constraints, seek moments of pleasure through delicious food. Corporate employees and highly educated respondents emphasize food safety and hygiene, paying close attention to packaging and freshness. Both young and low-income groups also show heightened concern for health, nutrition, and environmental impact, with low-income individuals favoring locally produced food for its freshness, affordability, and support for the local economy.

This study contributes by extending previous research on consumer patterns and choices, focusing on the impact of food price inflation on consumer food selection and consumption. Given the recent events of the COVID-19 pandemic, the Ukraine war, and high inflation, this research explores how these events have influenced Taiwanese consumers and their food choices. Food is a basic necessity of life, and it is crucial to understand how events affect consumer choices. By better understanding consumer trade-offs, food producers can better determine appropriate choices in their food supply. Additionally, by understanding the impact of inflation on the food choices of consumers across different income levels, food retailers and manufacturers can better market their products.

By focusing on a recent timeframe, the study results are more timely and relevant, providing a better reflection of current food choice scenarios. Additionally, from a global turbulence context aspect, analyzing the research topic within the context of global turbulence allows for a more comprehensive

consideration of the impact of global events on food choices. Finally, linking food choice issues with global instability helps to improve the relevance and applicability of the research.

The remainder of this paper is structured as follows. Section two presents a review of the pertinent literature and hypothesis development. Section three describes our methodology. The findings are presented in section four. The fifth section provides a summary and discusses the implications of our results.

Literature Review and Hypothesis Development

The Ukraine War Crisis

The increases in prices directly or indirectly stems from the situation in Ukraine. As both Russia and Ukraine are pramary agricultural countries and significant suppliers of raw materials, the conflict has disrupted container shipping and logistics, causing prices to soar and global supply chain pressures to multiply. Democratic countries, spearheaded by the United States, have imposed technological, financial, and economic sanctions against Russia. In response, Russia has implemented countermeasures, such as cutting off food supplies and blocking Ukrainian ports, preventing the export of essential grains and energy. The ongoing war and sanctions have driven up prices and weakened food security for millions (Rice et al., 2022). As food prices soar, oil prices have also been steadily climbing.

Following the escalation of the crisis into full-scale war in February 2022, global grain trade was immediately affected. Ukraine, as one of the world's largest grain exporters, saw its production severely impacted by the war. This led to reduced grain supplies on the global market and significant price increases, particularly for developing countries. European leaders strongly condemned Russia's assault on Ukraine and enacted a series of sanctions, making fossil fuels harder to obtain and more expensive. This, in turn, affected food prices, as various food products need energy for processing, such as in bakeries, or for storage, such as in frozen goods. The reduction in Russian fertilizer exports further adversely affected global food production. These developments have heightened concerns about the current food system's ability to adapt and whether the price increases will lead to severe food shortages (Mbah and Wasum, 2022; Rose et al., 2023).

Research by Arndt et al. (2023) indicates that the Ukraine war has significantly disrupted global markets for food, fuel, and fertilizers, with household expenses and the poor being most impacted by escalating fuel and food prices. The repercussions of the Russia-Ukraine war on food, fuel, and fertilizer prices are a significant concern for increasing global poverty and food insecurity. Rice et al. (2022) also show that the war has severely impacted commodity markets, particularly in food and energy sectors, disrupting global trade, production, and consumption patterns. Prices are anticipated to remain at historically high levels through the end of 2024, posing a serious threat to global food security.

In 2022, the European Institute of Innovation & Technology (EIT) conducted a survey of 5,000 consumers across ten European countries regarding the impact of

the war on their attitudes toward food. The study found that 54% of respondents believed the war was the main cause of rising food prices in Europe, 53% were highly concerned about food shortages, 55% thought the war's impact on the economy and supply chains increased the vulnerability of food production, and 48% believed the war allowed food retailers and manufacturers to gain more profit.

The Ukraine war has triggered global inflation, impacting regions far from the battlefield, including Taiwan, which faces rising energy and food prices and inflationary pressures. With over 90% reliance on imports, Taiwan is significantly affected when international oil prices soar, inevitably increasing domestic inflationary pressure. Additionally, raw material prices have risen sharply, with the cost of products imported from Ukraine, such as sunflower seeds, corn, wheat, mixed grains, and sorghum, increasing substantially within a month of the war's onset. Wheat prices in Taiwan rose by 44%, soybeans by 12%, corn by 18%, and sunflower seeds by 46%. Prices for wheat-based products like flour, pasta, and bread have also been steadily climbing (Xuan, 2022). Food prices in Taiwan continue to rise, showing no signs of stopping. In April 2023, dining out prices rose by 4.41%, food prices by 4.19%, eggs by 29.51%, meat by 8.54%, and cooking oil by 8.83%. The costs of cooking oil, frozen food, fruits, and seafood increased by 8.83%, 5.49%, 5.19%, and 4.19%, respectively. Everyday essentials, including eggs, sugar, rice, bread, cooking oil, instant noodles, pork, shampoo, and toilet paper, saw an annual price increase of up to 7.35% (Yan, 2023). This has resulted in significant energy and food price increases for Taiwan, which relies heavily on imported commodities like crude oil, wheat, and soybeans, exacerbating domestic inflationary pressures.

Food Choice

Food choice refers to the process individuals use to select what to purchase and consume. The selection process differs for each individual, shaped by a complex interplay of various factors. including culture, tradition, and upbringing. For example, if someone has food allergies, they might look for allergen information. Food choices can also be affected by personal preferences, including sustainability certifications (such as fair trade), organic labels, and health-related information. Other personal factors affecting food choice can include habits (e.g., "I always buy this"), taste, mood, appetite, or urgency (EUFIC, 2023).

Product-related factors, such as product attributes, packaging design, and labeling, also drive food choices. Tran et al. (2022) found that Vietnamese consumers increasingly prioritize food safety and are willing to pay a premium for products that display food safety signals on their packaging. These signals can include recognized certifications, reputable branding, and traceability marks. In this context, knowledge is less important than trust in the labels. d'Astous and Labrecque (2021) discovered that packaging perceived as responsible, such as being recyclable, reusable, or compostable, enhances perceptions of the product as natural and healthy, thereby increasing consumer willingness to choose such products.

Research by Renner et al. (2012), Steptoe et al. (1995), Appleton et al. (2017), and Dahal et al. (2022) indicates that mood, health, price, convenience, familiarity, natural ingredients, social norms, taste, and ethical concerns are primary considerations for consumers when choosing food. Eertmans et al. (2006) found that Italian consumers prioritize health and natural content, convenience, and mood when selecting food. Figueiredo et al. (2022) emphasized the importance of food familiarity. Choices for rural foods are often driven by consumer familiarity with rural areas, whether due to kinship or frequent visits. Besides familiarity, sensory aspects of the product, convenience, origin, and impact on rural development are also significant factors.

Wongprawmas et al. (2021) noted the complexity of food choices, which are influenced by a range of factors including biological determinants (such as hunger, appetite, and taste), psychological influences (like mood, stress, and guilt), physiological aspects (such as access, education, and time), social factors (including culture, family, and peers), and economic considerations (like cost, income, and availability). Food choices are also influenced by individuals' attitudes, beliefs, and knowledge of food (Bellisle, 2006). Gaining insight into individual food choices is crucial for ensuring human health and planetary sustainability (Chen and Antonelli, 2020).

The key determinants of food choice include intrinsic food elements (such as sensory and perceptual attributes), extrinsic factors (including information, social and physical environment), personal factors (like biological traits, physiological needs, psychological components, habits, and life experiences), cognitive factors (such as knowledge, skills, attitudes, preferences, expected outcomes, and personal identity), and sociocultural factors (including culture, economic conditions, and political influences) (Chen and Antonelli, 2020).

The COVID-19 pandemic altered consumer food choice and shopping patterns unprecedentedly (Grunert et al., 2023). Thirty-two percent of respondents indicated that post-Ukraine war and price increases, they are more sensitive to price hikes and more careful in their food choices, paying greater attention to product names, contents, net weight, ingredients, additives, origin, expiration dates, and nutritional information on packaging (Grunert et al., 2023). Food labeling has become a more critical indicator for consumers when choosing food. Nutritional information helps those who need to control their diet to select more suitable foods. Food labels help consumers better understand food quality, composition, and nutritional content, aiding them in choosing food that meets health and hygiene needs and maintaining a healthy weight.

Shorr (2020) also found that during the pandemic, most respondents indicated that packaging and labeling were crucial when choosing food. Seventy percent of respondents said they "always" or "often" read food labels. Additionally, sixty-six percent noted changes in their purchasing behavior due to the pandemic, indicating increased attention to food labels and packaging. Forty-one percent of respondents said that product shortages made packaging and labeling more critical in their decision-making. Sixty-one percent reported that their recent purchasing habits significantly changed their future food-buying methods. Younger respondents (18-44 years) were more likely to change their purchasing

habits than those over 45. Fifty-five percent of respondents who modified their purchasing behavior due to the pandemic now find food prices more important. Nearly half (48%) stated that freshness is the most crucial factor influencing their label-based purchasing behavior.

Sixty-four percent of surveyed U.S. consumers are willing to spend more for foods labeled non-GMO, organic, or all-natural (Shorr, 2020). Among different age groups, 71% of respondents aged 30-44 are willing to pay more, followed by 18-29-year-olds (64%), those over 60 (61%), and 45-60-year-olds (60%). In terms of household income, 71% of respondents with an annual income above \$150,000 are willing to pay more, followed by those with an income of \$10,000-\$74,999 (65%), and \$75,000-\$149,999 (60%) (Shorr, 2020). Although recognition of convenience labels is lower, 42% of respondents chose more convenient ready-to-eat meals, such as "pre-cooked," "ready-to-eat," or "stove-ready" foods during the COVID-19 pandemic. Men opted for more convenience meals than women. Younger respondents (18-29 years) chose more convenience meals (56%), followed by 30-44-year-olds (48%), 45-60-year-olds (36%), and those over 60 (27%). Nearly half (46%) of respondents are willing to pay a premium for recyclable or reusable packaging, with 18-29-year-olds being the most likely (51%) and those over 60 being the least likely (41%) (Shorr, 2020).

Grunert et al. (2021) examined how the COVID-19 pandemic affected food-related behavior changes among European consumers. The study found that when choosing food, consumers particularly noted price, shelf life, packaging extent, and the presence of additives and preservatives. Seventeen percent of respondents, who are more health-conscious, made more product comparisons, reduced their intake of frozen foods, convenience foods, and snacks, focusing more on a varied diet and weight management, predominantly among men. Conversely, twelve percent of respondents, who value convenience, displayed opposite tendencies, opting for more frozen foods, indulging in gourmet treats, and purchasing more convenience meals and snacks, predominantly among younger men (Grunert et al., 2021).

Grunert et al. (2023) studied consumer behavior related to food during crises, reporting that nearly one-third of consumers are more aware of price increases, shelf life, product information, labels, packaging, and the presence of additives and preservatives when choosing food. They also pay more attention to diet to control weight and are less inclined to choose simple, quick-prep foods, with a greater emphasis on healthy eating, especially among those with Graduate school or above degrees. This group prefers spending more time in the kitchen and enjoying family meals. In contrast, younger groups prioritize easy, quick-prep dishes when shopping for food.

External environmental constraints can lead to shifts in consumer behavior. For example, the COVID-19 pandemic, as a disruptive event, altered food-related behaviors and eating habits due to fear and insecurity. It impacted how consumers shop, where and how they dine, home meal preparation, and eating companions. Some had more time at home to participate in meal preparation, while others had less time due to childcare responsibilities (Goolsbee and Syverson, 2020). Bender et al. (2020) also found that approximately two-thirds

(62%) of respondents prepared or cooked food at home at least four times a week, increasing the frequency of home meal preparation.

De Backer et al. (2021), derived from data across 38 countries, found that home policies and more available time during COVID-19 led to an increase in purchasing, selecting, and preparing healthier foods. However, Robinson et al. (2021) found that in the UK, 56% of people more frequently bought and consumed snacks, increasing the amount of unhealthy food at home. Furthermore, the requirement to stay home and maintain social distance, restricting real-life interactions with friends or working hard to sustain basic livelihoods, led to reduced self-control over healthy behaviors and the occurrence or exacerbation of unhealthy eating habits, such as binge eating, drinking alcohol, replacing meals with snacks, and consuming quick-service meals (Di Renzo et al., 2020).

Hypothesis Development

This study aims to explore how Taiwanese consumers perceive price increases related to the war in Ukraine and what strategies they adopt in their food choices. Grunert et al. (2023) included demographic data such as gender, age, occupation, education level, income, number of children related to food-related behavior, investigating the extent of shifts in consumer behavior related to food during crises. The study indicated that highly price-sensitive and health-conscious groups emphasize choosing healthy diets, checking expiration dates, product information on labels, packaging, and the presence of additives and preservatives. This group, especially those with Graduate school or above degrees, is not keen on selecting quick-prep foods. Compared to younger consumers, this group has lower food participation and tends to place less importance on selecting products.

Grunert et al. (2021) and De Backer et al. (2021) used demographic variables as one of the factors to investigate how the COVID-19 pandemic affected changes in food-related consumption behavior. Hassen et al. (2022) examined the impact of gender on food behavior in North African countries during the COVID-19 pandemic. The study found that, due to fear, anxiety, or boredom, women were more likely than men to consume more food, prefer more unhealthy food, tend to stockpile more food, and more frequently change their shopping habits.

Muresan et al. (2022) pointed out that consumers' socio-demographic characteristics have a significant impact on the food consumption decision-making process. In terms of gender, notable differences exist between men and women in the structure of socio-economic and food waste. In terms of age, respondents over 40 years old are more concerned about the impact of shopping habits on the environment and are more interested in environmental protection compared to younger respondents. They are also more concerned about socio-economic and health considerations. There are also significant differences in the education level of respondents; consumers with university degrees place more importance on handling food waste than those with lower education levels. However, there were no significant differences observed in respondents' monthly household net income. Nagel et al. (2023) also showed that nearly 90% of respondents are more willing to purchase locally produced seafood.

Clearly, crises have disrupted various aspects of life, including how consumers choose and consume food. In the face of crises and constraints caused by external factors, demographic variables such as gender, age, education level, income, and number of cohabiting children may change their food-related purchasing patterns in different ways. Therefore, our first hypothesis is:

H1: Taiwanese consumers' food choices differ significantly based on different demographic variables.

Methodology

Analyses

A survey was conducted among Taiwanese consumers to collect data. The respondents anonymously filled out the questionnaire. The questionnaire is structured into two sections: the first part covers "Consumer Demographic Variable," and the second part addresses "Consumer Food Choices."

Consumer Demographic Variables

Age, gender, and education are related to food-related behaviors (Lusk, 2017; Grunert et al., 2021; De Backer et al., 2021). Studies have also shown that income and the number of children in a household are related to food-related behaviors (Grunert et al., 2021). Therefore, this questionnaire includes the following demographic variables: gender, age, occupation, education level, number of cohabiting children, and monthly income. Table 1 lists the names and descriptions of these variables:

Table 1 - Demographic Variables

Variable	Questionnaire Content
Gender	(1) Male
	(2) Female
Age	(1) 30 years or younger
	(2) 31-40 years
	(3) 41-50 years
	(4) 51 years or older
Occupation	(1) School teacher (including retired)
	(2) School administrative staff
	(3) Student
	(4) Corporate employee
	(5) Government employee (including retired)
	(6) Medical personnel
	(7) Freelancer
Education Level	(1) Graduate school or above
	(2) University graduate
	(3) Vocational/High school graduate
	(4) Other
Number of Cohabiting	(1) 0
Children	(2) 1-2

Variable	Questionnaire Content	
	(3) 3-4	
	(4) 5 or more	
Monthly Income	(1) 40,000 or less	
	(2) 40,001-50,000	
	(3) 50,001-60,000	
	(4) 60,001-70,000	
	(5) 70,001-80,000	
	(6) More than 80,001	

Consumer Food Choice Scale

Grunert et al. (2007) used a 7-point scale to measure consumer food choices. Similarly, Grunert et al. (2021) and Diener et al. (1985) employed nine items on a 7-point scale to measure consumer food choices. The scale labels were: 1 - Much less than before, 4 - No change, and 7 - Much more than before (Brunsø et al., 2021; Grunert et al., 2021).

Based on the relevant literature discussed above, this study uses nine related items from Grunert et al. (2021) to measure changes in consumer food choices. The questions are presented in Table 2. The measurement items consist of nine questions, applying a 7-point scale ranging from 1 - Much less than before, 2 - Less than before, 3 - Slightly less than before, 4 - No change, 5 - Slightly more than before, 6 - More than before, 7 - Much more than before, as shown in Table 2.

Table 2 - Consumer Food Choice Measurement Questions

Question	Measurement Question		
Number			
1	When cooking or eating, I first and foremost consider the taste		
2	I always check the packed on and use by dates to ensure that I am		
	buying the freshest produce		
3	Frozen foods account for a large part of the food products I use in my		
	household		
4	I prefer to eat food which is locally produced.		
5	I prefer to purchase unpackaged food or food with		
	recyclable/biodegradable packaging because of the environment		
6	I prefer to purchase packaged food because of hygienic concern		
7	I try to avoid food products with artificial additives or preservatives		
8	I pay attention to my diet to control my weight		
9	I indulge myself by buying tasty treats and delicacies		

Data collection

This study aims to explore how Taiwanese consumers perceive and respond to food-related choices in the context of price increases linked to the Ukraine war. To achieve this, a random sample of Taiwanese consumers was recruited in December 2023 to participate in an online survey. The participants were selected

to capture a representative cross-section of the population, taking into account various demographic factors such as age, gender, occupation, income, education level, and number of cohabiting children.

To maintain data integrity, the survey was designed to restrict duplicate submissions from a single device, and participants were required to complete all questions before submitting their responses. Built-in logic in Google Forms also helped to guide respondents through the survey, with tailored follow-up questions depending on their previous answers, thus providing more in-depth insights into specific behaviors or attitudes.

The Google Form link is shared across various popular platforms in Taiwan to reach a wide and diverse audience. One effective method is through social media platforms like Facebook, where community groups, personal profiles, and sponsored posts are used to spread the link. Another key channel is Line, a widely-used messaging app in Taiwan. The survey link is sent via group chats, personal messages, or even in official Line groups. Additionally, we are sharing the survey with students through university email lists, or student groups on Facebook or Line that target a younger, educated demographic.

Participants were briefed on the study's objectives and provided consent before beginning the survey. The consent form outlined the study's objectives, assured participants of their anonymity, and indicated that the survey would take approximately 20 minutes to complete.

This approach ensured that respondents were fully informed about their rights and the scope of the study, thereby enhancing the reliability of the data collected. A total of 1069 valid questionnaires were collected.

Results

Sample Demographic Variables Statistics and Analysis

The demographic variables include gender, age, occupation, education level, number of cohabiting children, and monthly income, as detailed in Table 3. The analysis of background attributes is as follows:

Gender: Among the consumers, there were 461 males, representing 43.1% of the total sample, and 608 females, making up 56.9% of the sample, indicating more female than male consumers.

Age: In terms of age, "30 years or younger" was the most represented, accounting for 55.2% of the total with 590 individuals; "31-40 years old" accounted for 4.2% with 45 individuals; "41-50 years old" accounted for 10.5% with 112 individuals; "51 years or older" accounted for 30.1% with 322 individuals. The least represented age group was "31-40 years old." The respondents were mainly concentrated in the "30 years or younger" and "51 years or older" groups.

Occupation: The largest occupational group was "Corporate employee," accounting for 63.0% of the total with 673 individuals. "Freelancer" followed, accounting for 21.8% with 233 individuals. "Student" accounted for 5.9% with 63 individuals; "School teacher (including retirees)" accounted for 3.6% with 39 individuals; "Government employee (including retirees)" accounted for 3.0% with 32 individuals; "Medical personnel" accounted for 2.2% with 23 individuals. The

least represented group was "School administrative staff," accounting for 0.5% with 6 individuals. The majority of respondents were "Corporate employee" and "Freelancer."

Education Level: The largest educational level was "University graduate," accounting for 63.5% of the total with 679 individuals. "Vocational/High school graduate" followed, accounting for 18.1% with 193 individuals. "Graduate school or above" accounted for 12.6% with 135 individuals, and "Other" accounted 5.8% with 62 individuals.

Number of Cohabiting Children: The most common number of children was "1-2," accounting for 46.0% of the total with 492 individuals. "0 children" accounted for 45.6% with 487 individuals; "3-4 children" accounted for 7.1% with 76 individuals; "5 or more children" accounted for 1.3% with 14 individuals.

Monthly Income: The most common monthly income was "40,000 NTD or less," accounting for 60.1% of the total samples with 643 individuals. "More than 80,001 NTD" followed, accounting for 15.7% with 168 individuals; "40,001-50,000 NTD" accounted for 11.7% with 125 individuals; "50,001-60,000 NTD" accounted for 5.0% with 53 individuals; "60,001-70,000 NTD" accounted for 4.8% with 51 individuals; "70,001-80,000 NTD" accounted for 2.7% with 29 individuals. Most consumers' monthly income was concentrated in the "40,000 NTD or less" category.

Table 3 - Statistics of Consumer Demographic Information

Variable	Questionnaire Content	Sample Size	Percentage (%)
Gender	(1) Male	461	43.1
Gender	(2) Female	608	56.9
Ago	(')	590	55.2
Age	(1) 30 years or younger	45	4.2
	(2) 31-40 years	112	10.5
	(3) 41-50 years		
0 1:	(4) 51 years or older	322	30.1
Occupation	(1) School teacher (including	39	3.6
	retired)	6	0.5
	(2) School administrative staff	63	5.9
	(3) Student	673	63.0
	(4) Corporate employee	32	3.0
	(5) Government employee	23	2.2
	(including retired)	233	21.8
	(6) Medical personnel		
	(7) Freelancer		
Education Level	(1) Graduate school or above	135	12.6
	(2) University graduate	679	63.5
	(3) Vocational/High school	193	18.1
	graduate	62	5.8
	(4) Other		
Number of	(1) 0	487	45.6
Cohabiting Children	(2) 1-2	492	46.0
	(3) 3-4	76	7.1
	(4) 5 or more	14	1.3
Monthly Income	(1) 40,000 or less	643	60.1

Variable	Questionnaire Content	Sample	Percentage
		Size	(%)
	(2) 40,001-50,000	125	11.7
	(3) 50,001-60,000	53	5.0
	(4) 60,001-70,000	51	4.8
	(5) 70,001-80,000	29	2.7
	(6) More than 80,001	168	15.7

Differences in Food Choices by Gender

According to Table 4, males scored significantly higher than females on "When cooking or eating, I first and foremost consider the taste" and "Frozen foods account for a large part of the food products I use in my household." This indicates that men place more importance on these aspects of food choice and pay slightly more attention to the food selection process than before.

Conversely, males scored significantly lower than females on "I always check the packed on and use by dates to ensure that I am buying the freshest produce," "I prefer to eat food which is locally produced," "I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment," "I try to avoid food products with artificial additives or preservatives," and "I pay attention to my diet to control my weight." This suggests that men are less concerned about these aspects of food choice compared to women.

Women are likely to place a greater emphasis on the quality of food, including checking packaging and expiration dates to ensure they are buying the freshest and most hygienic products. Additionally, women might prefer locally produced food due to trust in local products and an interest in supporting local businesses and the community, rather than opting for imported or distant-produced items.

Moreover, women may be more concerned with the environmental implication of food packaging and thus prefer unpackaged or recyclable/biodegradable packaged foods. They also tend to focus more on the nutritional value and health components of food, choosing items without artificial additives or preservatives to ensure a healthy diet.

Finally, due to concerns about physique and health, women are more inclined to focus more on their diet, controlling their food intake and selecting low-calorie foods to maintain their weight and figure.

Table 4 - Summary of Food Choices by Gender

	Item	Gender Comparison (t-Test)
1	When cooking or eating, I first and foremost consider	M > F
	the taste	
2	I always check the packed on and use by dates to	F > M
	ensure that I am buying the freshest produce	
3	Frozen foods account for a large part of the food	M > F

	Item	Gender Comparison
		(t-Test)
	products I use in my household	
4	I prefer to eat food which is locally produced.	F > M
5	I prefer to purchase unpackaged food or food with	F > M
	recyclable/biodegradable packaging because of the	
	environment	
6	I prefer to purchase packaged food because of hygienic	
	concern	
7	I try to avoid food products with artificial additives or	F > M
	preservatives	
8	I pay attention to my diet to control my weight	F > M
9	I indulge myself by buying tasty treats and delicacies	

Differences in Food Choices by Age

The Scheffe method is a post hoc test used to identify which groups have significant differences after conducting ANOVA. The statistical results are detailed in Table 5.

According to Table 5, consumers aged 30 and below scored higher on "When cooking or eating, I first and foremost consider the taste," "I always check the packed on and use by dates to ensure that I am buying the freshest produce," "I prefer to eat food which is locally produced," "I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment," "I prefer to purchase packaged food because of hygienic concern," and "I indulge myself by buying tasty treats and delicacies" than those aged 31-40, 41-50, and 51 and above. This indicates that consumers aged 30 and below places more importance on these aspects of food choice than those in the other age groups.

Conversely, consumers aged 51 and above scored significantly lower on "Frozen foods account for a large part of the food products I use in my household," "I try to avoid food products with artificial additives or preservatives," and "I indulge myself by buying tasty treats and delicacies" than those aged 31-40 and 41-50. This suggests that consumers aged 51 and above pay less attention to these aspects of food choice compared to the other age groups.

During inflation periods, younger people may place greater emphasis on the taste and enjoyment of food, seeking happiness and satisfaction. They may also be more concerned about the freshness and quality of food, ensuring safety and meeting their expectations. Additionally, younger people might prefer locally produced food to support the local economy and trust the quality of local products. With increasing environmental awareness, they are more likely to choose unpackaged or recyclable/biodegradable packaged foods to reduce environmental impact. Regarding hygiene, they might prefer packaged foods to better protect food hygiene. Overall, these characteristics reflect young people's concern for food quality, safety, environmental protection, and hygiene during inflation periods.

Table 5 - Summary of Food Choices by Age

	Item	Age Comparison (Scheffe Test)
1	When cooking or eating, I first and foremost consider the taste	30 years or younger > 31-40 years 30 years or younger > 41-50 years 30 years or younger > 51 years or older
2	I always check the packed on and use by dates to ensure that I am buying the freshest produce	30 years or younger > 31-40 years 30 years or younger > 41-50 years 30 years or younger > 51 years or older
3	Frozen foods account for a large part of the food products I use in my household	30 years or younger > 51 years or older 31-40 years > 51 years or older 41-50 years > 51 years or older
4	I prefer to eat food which is locally produced	30 years or younger > 31-40 years 30 years or younger > 41-50 years 30 years or younger > 51 years or older
5	I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment	30 years or younger > 31-40 years 30 years or younger > 41-50 years 30 years or younger > 51 years or older 41-50 years > 51 years or older
6	I prefer to purchase packaged food because of hygienic concern	30 years or younger > 31-40 years 30 years or younger > 41-50 years 30 years or younger > 51 years or older
7	I try to avoid food products with artificial additives or preservatives	30 years or younger > 51 years or older 31-40 years > 51 years or older 41-50 years > 51 years or older
8	I pay attention to my diet to control my weight	30 years or younger > 51 years or older
9	I indulge myself by buying tasty treats and delicacies	30 years or younger > 31-40 years 30 years or younger > 41-50 years 30 years or younger > 51 years or older 31-40 years > 51 years or older 41-50 years > 51 years or older

Differences in Food Choices by Occupation

Further, a Scheffe post hoc test was conducted. According to Table 6, for example, corporate employee scored higher than students, medical personnel, and freelancer on "When cooking or eating, I first and foremost consider the taste", "I always check the packed on and use by dates to ensure that I am buying the freshest produce", "I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment", "I prefer to purchase packaged food because of hygienic concern", and "I indulge myself by

buying tasty treats and delicacies". This suggests that office workers place more importance on these food selection processes compared to students, medical staff, and freelancers, indicating a higher degree of concern for these food choices than before.

Additionally, school teachers (including retired) scored significantly higher than freelancers on "I always check the packed on and use by dates to ensure that I am buying the freshest produce", "I prefer to eat food which is locally produced", "I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment", and "I try to avoid food products with artificial additives or preservatives". This suggests that school teacher (including retired) have increased their attention to these food selection processes compared to freelancers.

Table 6 - Summary of Food Choices by Occupation

	Item	Occupational Comparison (Scheffe Test)
1	When cooking or eating, I first and foremost consider the taste	School teacher (including retired) > Medical personnel Corporate employee > School teacher (including retired) Corporate employee > Student Corporate employee > Government employee (including retired) Corporate employee > Medical personnel Corporate employee > Freelancer
2	I always check the packed on and use by dates to ensure that I am buying the freshest produce	School teacher (including retired) > Student School teacher (including retired) > Medical personnel School teacher (including retired) > Freelancer Corporate employee > Student Corporate employee > Medical personnel Corporate employee > Freelancer
3	Frozen foods account for a large part of the food products I use in my household	Student > Freelancer Corporate employee > Freelancer
4	I prefer to eat food which is locally produced	School teacher (including retired) > Freelancer Corporate employee > Freelancer
5	I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment	School teacher (including retired) > Freelancer Corporate employee > Freelancer Student > Freelancer
6	I prefer to purchase packaged food because of hygienic concern	School teacher (including retired) > Medical personnel Corporate employee > Student Corporate employee > Government employee

	Item	Occupational Comparison (Scheffe Test)
		(including retired)
		Corporate employee > Medical personnel
		Corporate employee > Freelancer
7	I try to avoid food products	School teacher (including retired) >
	with artificial additives or	Freelancer
	preservatives	Corporate employee > Freelancer
8	I pay attention to my diet to	School teacher (including retired) > Student
	control my weight	School teacher (including retired) >
		Government employee (including retired)
		Corporate employee > Student
		Corporate employee > Government employee
		(including retired)
		Corporate employee > Freelancer
9	I indulge myself by buying	Corporate employee > School teacher
	tasty treats and delicacies	(including retired)
		Corporate employee > Student
		Corporate employee > Government employee
		(including retired)
		Corporate employee > Medical personnel
		Corporate employee > Freelancer

Differences in Food Choices by Education Level

Further analysis using Scheffe's post-hoc test, detailed in Table 7, shows the following results:

University graduates scored higher than vocational/high school graduate on items such as "When cooking or eating, I first and foremost consider the taste," "I always check the packed on and use by dates to ensure that I am buying the freshest produce," "I prefer to eat food which is locally produced," "I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment," "I pay attention to my diet to control my weight," and "I indulge myself by buying tasty treats and delicacies." This indicates that university graduates place more importance on these food choice processes compared to vocational/high school graduates, showing increased concern for these factors.

Additionally, individuals with graduate school or above education, university graduates, and vocational/high school graduate scored higher than those with other education levels on the item "I try to avoid food products with artificial additives or preservatives." This suggests that individuals with higher education levels are more concerned about avoiding artificial additives or preservatives compared to those with other education levels.

Furthermore, those with other education levels scored higher than graduate school or above, university graduates, and vocational/high school graduate on the item "I indulge myself by buying tasty treats and delicacies." This indicates that individuals with other education levels value this aspect of food choice more than those with higher education levels, showing increased concern for this factor compared to before.

Table 7 - Summary of Food Choices by Education Level

	Item	Education Level Comparison (Scheffe Test)
1	When cooking or eating, I first	Graduate school or above >
	and for emost consider the	Vocational/High school graduate
	taste	University graduate > Graduate school or
		above
		University graduate > Vocational/High
		school graduate
		University graduate > Other
		Other > Vocational/High school
0	T 1 1 1 1 1 1 1	graduate
2	I always check the packed on and use by dates to ensure that	University graduate > Graduate school or above
	I am buying the freshest	University graduate > Vocational/High
	produce	school graduate
	produce	School graduate
3	Frozen foods account for a large	Graduate school or above > Other
	part of the food products I use	University graduate > Other
	in my household	Vocational/High school graduate
	<u> </u>	> Other
4	I prefer to eat food which is	University graduate > Vocational/High
	locally produced	school graduate
5	I prefer to purchase	Graduate school or above > Other
	unpackaged food or food with	University graduate > Vocational/High
	recyclable/biodegradable	school graduate
	packaging because of the	University graduate > Other
	environment	Vocational/High school graduate
6	I prefer to purchase packaged	> Other Graduate school or above >
0	food because of hygienic	Vocational/High school graduate
	concern	University graduate > Vocational/High
	Collectii	school graduate
		Other > Graduate school or above
		Other > Vocational/High school
		graduate
7	I try to avoid food products with	Graduate school or above > Other
	artificial additives or	University graduate > Other
	preservatives	Vocational/High school graduate
		> Other
8	I pay attention to my diet to	University graduate > Vocational/High
	control my weight	school graduate
		Other > Vocational/High school
	7 1 1 101 1	graduate
9	I indulge myself by buying tasty	Graduate school or above >
	treats and delicacies	Vocational/High school graduate
		University graduate > Graduate school or
		above Other > Graduate school or above
1 1		Outer > Graduate school of above

Item	Education Level Comparison (Scheffe Test)
	University graduate > Vocational/High school graduate
	Other > University graduate
	Other > Vocational/High school
	graduate

Differences in Food Choices by Number of Cohabiting Children

A post-hoc test using the Scheffé method was conducted, and the statistical results are detailed in Table 8. According to Table 8, for example, households with no children scored higher on "When cooking or eating, I first and foremost consider the taste", "I pay attention to my diet to control my weight", and "I indulge myself by buying tasty treats and delicacies" compared to households with 1-2, 3-4, and more than 5 children. This indicates that those with no children prioritize these food choices more than those with 1-2, 3-4, and more than 5 children, paying slightly more attention to these food selection processes.

Households with 1-2 children scored higher on "I prefer to purchase packaged food because of hygienic concern" and "I indulge myself by buying tasty treats and delicacies" compared to households with 3-4 children, indicating that those with 1-2 children prioritize these food choices more than those with 3-4 children, paying slightly more attention to these food selection processes.

Table 8 - Summary of Food Choices by Numbers of Cohabiting Children

	Item	Numbers of Cohabiting Childre		
		Comparison (Scheffe Test)		
1	When cooking or eating, I first and	0 > 1-2		
	foremost consider the taste	0 > 3-4		
		0 > 5 or more		
		1-2 > 3-4		
2	I always check the packed on and use	0 > 3-4		
	by dates to ensure that I am buying the	0 > 5 or more		
	freshest produce	1-2 > 5 or more		
3	Frozen foods account for a large part of	1-2 > 0		
	the food products I use in my household	3-4 > 0		
4	I prefer to eat food which is locally	0 > 1-2		
	produced.			
5	I prefer to purchase unpackaged food or	1-2 > 0		
	food with recyclable/biodegradable			
	packaging because of the environment			
6	I prefer to purchase packaged food	0 > 3-4		
	because of hygienic concern	0 > 5 or more		
		1-2 > 3-4		
7	I try to avoid food products with	1-2 > 0		
	artificial additives or preservatives			
8	I pay attention to my diet to control my	0 > 1-2		
	weight	0 > 3-4		

	Item	Numbers of Cohabiting Childre Comparison (Scheffe Test)	
		0 > 5 or more	
9	I indulge myself by buying tasty treats and delicacies	0 > 1-2 0 > 3-4 0 > 5 or more	
		1-2 > 3-4 1-2 > 5 or more	

Differences in Food Choices by Monthly Incomes

Further post hoc tests using the Scheffé method were conducted, and the statistical results are detailed in Table 9. According to Table 9, for example, individuals with a monthly income of 40,000 or less scored higher on "When cooking or eating, I first and foremost consider the taste" and "I indulge myself by buying tasty treats and delicacies" than those with monthly incomes of 40,001-50,000, 50,001-60,000, 60,001-70,000, 70,001-80,000, and more than 80,001. This indicates that individuals with a monthly income of 40,000 or less place higher importance on these food choices than those in the higher income brackets and are more concerned with these aspects than before.

Those with a monthly income of 40,000 or less also scored higher on "I prefer to purchase packaged food because of hygienic concern" and "I pay attention to my diet to control my weight" than those with monthly incomes of 50,001-60,000, 70,001-80,000, and more than 80,001, showing a higher emphasis on these food choices compared to the higher income groups. Additionally, for "I always check the packed on and use by dates to ensure that I am buying the freshest produce," those with a monthly income of 40,000 or less scored higher than those with incomes of 40,001-50,000 and above 80,001, indicating a higher level of attention to these aspects than the specified higher income groups.

During inflation periods, lower-income individuals may focus more on the taste and enjoyment of food, as they seek pleasure and satisfaction during challenging times. Despite their lower income, they still want to reward themselves with delicious food. Due to greater economic pressure, they may also prioritize the price and cost-effectiveness of food, opting for reasonably priced packaged food. Additionally, for hygiene reasons, they may prefer packaged food to ensure better food safety and sanitation. These characteristics reflect the low-income group's concerns about food quality, price, hygiene, and taste during inflation periods.

Table 9 - Summary of Food Choices by Monthly Income

	Item	Monthly Income Comparison (Scheffe Test)
1	When cooking or eating, I first and foremost consider the taste	40,000 or less > 40001-50000 40,000 or less > 50001-60000 40,000 or less > 60001-70000 40,000 or less > 70001-80000 40,000 or less > More than 80,001

	Item	Monthly Income Comparison (Scheffe Test)		
2	I always check the packed on and use by dates to ensure that I am buying the freshest produce	40,000 or less > 40001-50000 40,000 or less > More than 80,001		
3	Frozen foods account for a large part of the food products I use in my household	60001-70000 > 40001-50000 More than 80,001 > 40001-50000		
4	I prefer to eat food which is locally produced	40,000 or less > 50001-60000		
5	I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the environment			
6	I prefer to purchase packaged food because of hygienic concern	40,000 or less > 50001-60000 40,000 or less > 60001-70000 40,000 or less > 70001-80000 40,000 or less > More than 80,001		
7	I try to avoid food products with artificial additives or preservatives	More than 80,001 > 40001-50000		
8	I pay attention to my diet to control my weight	40,000 or less > 40001-50000 40,000 or less > 50001-60000 40,000 or less > 70001-80000 40,000 or less > More than 80,001		
9	I indulge myself by buying tasty treats and delicacies	40,000 or less > 40001-50000 40,000 or less > 50001-60000 40,000 or less > 60001-70000 40,000 or less > 70001-80000 40,000 or less > More than 80,001 40001-50000 > 60001-70000 40001-50000 > 70001-80000		

In summary, this section uses independent sample t-tests and one-way ANOVA to explore whether there are significant differences in food choices among Taiwanese consumers based on various background variables. The results indicate that different personal background variables such as gender, age, occupation, education level, number of cohabiting children, and monthly income all have significant differences in food choices. Therefore, this study's hypothesis H1 is strongly supported.

Food Choice Percentages

Table 10 shows that under the inflation-induced rise in consumption costs and limited funds, respondents are paying more attention to their food choices. Specifically, 60.90% of respondents focus more on "I prefer to eat food which is locally produced." Choosing locally produced food is an important step towards sustainability. It helps reduce the carbon footprint, promotes local economic development, protects land and ecosystems, and improves food quality and safety.

Additionally, 51.26% of respondents focus more on "I prefer to purchase unpackaged food or food with recyclable/biodegradable packaging because of the

environment" indicating a consumer preference for purchasing unpackaged food or food with recyclable/biodegradable packaging. This trend reflects an increased awareness of reducing plastic use, minimizing waste, and protecting the earth's ecological environment. Therefore, consumer food choices are gradually shifting towards more environmentally friendly and sustainable options.

Furthermore, respondents also pay more attention to "I always check the packed on and use by dates to ensure that I am buying the freshest produce" (64.83%), "I try to avoid food products with artificial additives or preservatives" (59.96%), and "I pay attention to my diet to control my weight" (70.73%). These choices reflect consumers' concern for their health and emphasis on food quality.

In addition, 68.48% of respondents focus more on "I indulge myself by buying tasty treats and delicacies" indicating that despite the pressures of rising prices on daily life, consumers occasionally indulge in delicious food to treat themselves, seeking small luxuries and pleasures to cope with the impact of inflation.

Table 11 shows that 48.27% of respondents pay less attention to "Frozen foods account for a large part of the food products I use in my household." Inflation may lead to an increase in frozen food prices, causing respondents to pay higher costs when purchasing. As a result, they may start looking for more economical food options rather than focusing solely on frozen food. Respondents may also begin to pay more attention to the nutritional value and health factors of food, rather than just convenience and preservation.

Table 10 - Consumer Food Choice Increase Percentage Distribution

Item	Slightly	More	Much	Total
	More %	%	More %	%
When cooking or eating, I first and	9.64	26.01	21.14	47.15
foremost consider the taste				
I always check the packed on and use by	28.72	29.37	6.74	64.83
dates to ensure that I am buying the				
freshest produce				
I prefer to eat food which is locally	30.96	20.30	9.64	60.90
produced.				
I prefer to purchase unpackaged food or	29.37	18.62	3.27	51.26
food with recyclable/biodegradable				
packaging because of the environment				
I prefer to purchase packaged food	43.87	14.50	1.78	60.15
because of hygienic concern				
I try to avoid food products with artificial	35.27	19.36	5.33	59.96
additives or preservatives				
I pay attention to my diet to control my	30.96	25.26	14.41	70.63
weight				
I indulge myself by buying tasty treats	23.20	19.93	25.35	68.48
and delicacies				

Table 11 - Consumer Food Choice Decrease Percentage Distribution

Item	Slightly	Less	Much	Total
	Less %	%	Less %	%
Frozen foods account for a large part	25.63	15.62	7.02	48.27
of the food products I use in my				
household				

Discussion

This study provides valuable insights into the changing dietary habits of Taiwanese consumers during inflationary periods, particularly emphasizing the various factors influencing food choices. The findings indicate a shift in priorities, with taste becoming a predominant consideration amidst economic constraints. This trend highlights a fundamental aspect of human behavior: the pursuit of enjoyment and satisfaction even in challenging circumstances. The tendency to scrutinize food packaging, particularly expiration dates, reflects consumers' heightened awareness of food quality and safety, corroborating existing research by Grunert et al. (2023) and Shorr (2022).

Moreover, the study reveals a notable preference for locally sourced food, which appears to stem from a dual desire to support the local economy and promote environmental sustainability. This aligns with the conclusions drawn by Figueiredo et al. (2022) regarding consumers' increasing interest in the origins of their food and its implications for rural development. Such preferences suggest that consumers are not merely seeking sustenance. They are also motivated by ethical and environmental considerations, signaling a shift towards more conscientious consumerism.

The findings also underscore a growing awareness of environmental issues, as evidenced by the preference for unpackaged and recyclable or biodegradable products. This is an important indication of consumers' commitment to reducing their environmental footprint, echoing the insights of d'Astous and Labrecque (2021) regarding the impact of responsible packaging on consumer perception.

Implication

Theoretical implications

The findings of this study elucidate significant theoretical implications regarding food choice, informing our understanding of consumer behavior through various lenses including socio-economic factors, psychological influences, and cultural dynamics. One important theoretical contribution is the recognition that traditional consumer choice models, which often prioritize individual preferences in isolation from their contexts, may be inadequate. Instead, this study posits an integrated framework that incorporates external economic pressures, ethical considerations, and personal health concerns as intertwined aspects that shape consumer preferences during challenging times, such as inflationary periods (Chen & Antonelli, 2020).

The complexity of food choices requires an interdisciplinary approach, bringing together insights from behavioral economics, psychology, and sociology. The interplay of factors such as taste, health, sustainability, and social norms aligns with Wongprawmas et al. (2021), who emphasized the multifaceted nature of food choices influenced by biological determinants, economic conditions, and social environments. This comprehensive understanding of food choice can lead to the refinement of existing models that categorize consumer behavior into strict dichotomies (e.g., rational vs. emotional decision-making).

Additionally, the study reinforces the significance of demographic variables, particularly gender, in food choice research. The pronounced differences in preferences for local, sustainable, and health-oriented foods among women underscore the need to consider gender dynamics when examining consumer behavior (Figueiredo et al., 2022). This observation invites further exploration into how gender influences the perception of food quality and the prioritization of ethical consumption, challenging researchers to delve deeper into gendered dietary patterns.

Moreover, as Grunert et al. (2023) suggest, the context of crises, like the COVID-19 pandemic or geopolitical conflicts, significantly alters consumer behavior, necessitating theories that address the nuances of consumer decision-making under stress. Notably, this study highlights that economic pressures push consumers toward a critical evaluation of food labeling, packaging, and product content, suggesting that trust in food labeling may outweigh mere product knowledge (Tran et al., 2022). This realization invites consumer behavior theorists to adopt a more nuanced understanding of how external factors influence consumer trust and decision-making processes connected to food choices.

Lastly, the emphasis on environmental sustainability aligns with the growing body of literature on ethical consumption and its impact on food choice (d'Astous & Labrecque, 2021). The increasing consumer focus on sustainability and the demand for eco-friendly packaging reflect a broader societal shift toward environmental consciousness, thus prompting academics to investigate the connections between consumer behavior and broader socio-political movements focused on sustainability.

Practical implications

The insights derived from this study can inform marketing strategies and product development for food companies. Understanding that consumers prioritize taste and health, especially during inflationary periods, could lead businesses to focus on these attributes in their offerings. For example, food manufacturers might consider highlighting the freshness and local sourcing of their products in their marketing campaigns, appealing to the growing consumer demand for transparency and quality.

Moreover, food retailers could benefit from adopting sustainable packaging solutions and clearly communicating these initiatives to consumers. By doing so, businesses not only enhance their appeal to environmentally conscious consumers but also align themselves with a growing trend towards sustainability.

Additionally, understanding the nuanced preferences of different demographic groups can aid in targeted marketing efforts. For instance, campaigns that resonate with young consumers' desire for taste and enjoyment, as well as low-income individuals' need for affordable freshness, could enhance engagement and brand loyalty.

Conclusion

This study represents a significant contribution to the understanding of Taiwanese consumers' dietary habits, particularly in relation to the impact of inflation. It highlights the intricate interplay between economic conditions, individual preferences, and broader social implications, illustrating that even while facing economic constraints, consumers prioritize taste, quality, and sustainability. The findings suggest a shift towards more conscientious consumer behavior, driven not only by the need for sustenance but also by a commitment to personal health and environmental stewardship. As these trends continue to evolve, businesses will need to adapt and respond to the changing preferences of consumers, ensuring that they cater to an increasingly discerning market.

References

- Appleton, K. M., Dinnella, C., Spinelli, S., Morizet, D., Saulais L., Hemingway, A., Monteleone, E., Depezay, L., Perez-Cueto, F. J. A., Hartwell, H. (2017), "Consumption of a High Quantity and a Wide Variety of Vegetables Are Predicted by Different Food Choice Motives in Older Adults from France, Italy and the UK," *Nutrients*, 23, 923.
- Arndt, C., Diao, X., Dorosh, P., Pauw, K., and Thurlow, J. (2023), "The Ukraine War and Rising Commodity Prices: Implications for Developing Countries," *Global Food Security*, 36.
- Bellisle, F. (2006), "The Factors That Influence Our Food Choices," European Union Food Information Council (EUFIC).
- Bender, K., Badiger, A., Roe, B., Shu, Y., and Qi, D. (2020), "Consumer Behavior During The COVID-19 Pandemic: An Analysis of Food Purchasing and Management Behaviors in U.S. Households Through the Lens of Food System Resilience," *Socio-Economic Planning Sciences*, 82.
- Brunsø, K., Birch, D., Memery, J., Temesi, A., ´Lakner, Z., Lang, M., Dean, D., and Grunert, K. G. (2021), "Core Dimensions of Food-Related Lifestyle: A New Instrument for Measuring Food Involvement, Innovativeness and Responsibility," Food Quality and Preference, 91.
- Chen, P. J., and Antonelli, M. (2020), "Conceptual Models of Food Choice: Influential Factors Related to Foods, Individual Differences, and Society," *Food*, 9 (12), 1898.
- Dahal. M., Basnet, A., Khanal, S., Baral, K., and Dhakal, S. (2022). "Gender Difference in Food Choice and Eating Practice and Their Association with Health among Students of Kathmandu, Nepal." J Obes. Aug 25;2022:2340809. doi: 10.1155/2022/2340809. PMID: 36061219; PMCID: PMC9436614.
- d'Astous, A., Labrecque, J. (2021), "The Impact of Responsible Food Packaging Perceptions on Naturalness and Healthiness Inferences, and Consumer Buying Intentions," *Foods*, 10, 2366.

- De Backer, C., Teunissen, L., Cuykx, I., Decorte, P., Pabian, S., Gerritsen, S., Matthys, C., Sabbah, H., and Royen, K. (2021), "An Evaluation of The COVID-19 Pandemic and Perceived Social Distancing Policies in Relation to Planning, Selecting, and Preparing Healthy Meals: An Observational Study in 38 Countries Worldwide," *Frontiers in Nutrition*, 7, Article 621726.
- Di Renzo, L., Gualtieri, P., Pivari, F., et al. (2020), "Eating Habits and Lifestyle Changes During COVID-19 Lockdown: An Italian Survey," *Journal of Translational Medicine*, 18, 229.
- Diener, E., Emmons, R. A., Larsen, R. J., and Griffin, S. (1985), "The Satisfaction with Life Scale," *Journal of Personality Assessment*, 49, 71–75.
- Eertmans, A., Victoir, A., Notelaers, G., Vansant, G., Van den Bergh, O. (2006), "The Food Choice Questionnaire: Factorial Invariant over Western Urban Populations?" *Food Qual. Prefer*, 17, 344–352.
- European Union Food Information Council (EUFIC). (2023), "Why Do We Eat What We Eat?"
- European Institute of Innovation & Technology (EIT). (2022), "Changes in Food Behaviour in Times of Crisis," https://www.eitfood.eu/files/Report-changes-in-food-behaviour-in-times-of-crisis.pdf
- Figueiredo, E., Forte, T., Eusébio, C., Silva, A., Couto, J. (2022), "Rural Ties and Consumption of Rural Provenance Food Products—Evidence from the Customers of Urban Specialty Stores in Portugal," *Foods*, 11, 547.
- Food and Agriculture Organization of the United Nations (FAO). IFAD, UNICEF, WFP and WHO. (2022), "The State of Food Security and Nutrition in the World 2022. Repurposing Food and Agricultural Policies to Make Healthy Diets More Affordable," Rome, FAO.
- Goolsbee, A., and Syverson, C. (2020), "Fear, Lockdown, and Diversion: Comparing Drivers of Pandemic Economic Decline 2020," NBER Working Papers 27432.
- Grunert, K. G., Costanza Chimisso, C., Lahteenmaki, L., Leardini, D., Sandell, A., Vainio, A., and Vranken, L. (2023), "Food-Related Consumer Behaviours in Times of Crisis: Changes in the Wake of The Ukraine War, Rising Prices and the Aftermath of the COVID-19 Pandemic," Food Research International, 173, 113451.
- Grunert, K. G., De Bauw, M., Dean, M., L" ahteenmaki, "L., Maison, D., Pennanen, K., ... Tarrega, A. (2021), "No Lockdown in the Kitchen: How The COVID-19 Pandemic Has Affected Food-Related Behaviours," *Food Research International*, 150, 110752.
- Grunert, K. G., Dean, M., Raats, M. M., Nielsen, N. A., and Lumbers, M. (2007), "A Measure of Satisfaction with Food-Related Life," *Appetite*, 49, 486–493.
- Hassen, T. B., Bilali, H. E., Allahyari, M. S., Kamel, I. M., Ismail, H. B., Debbabi, H., and Sassi, K. (2022), "Gendered Impacts of the COVID-19 Pandemic on Food Behaviors in North Africa: Cases of Egypt, Morocco, and Tunisia," Int J Environ Res Public Health, 19 (4), 2192.
- Lusk, J. L. (2017), "Consumer Research with Big Data: Applications from the Food Demand Survey (FooDS)," *American Journal of Agricultural Economics*, 99 (2), 303–320.
- Mbah, R. E., and Wasum, D. F. (2022), "Russian-Ukraine 2022 War: A Review of the Economic Impact of Russian-Ukraine Crisis on the USA, UK, Canada, and Europe," *Advances in Social Sciences Research Journal*, 9 (3), 144–153.

- Muresan, L., Harun, R., Brata, A., Brata, V., Chiciudean, D., Tirpe, O., Porutiu, A., and Dumitras, D. (2022), "Factors Affecting Food Consumers' Behavior during COVID-19 in Romania," *Foods*, 11 (15), 2275.
- Nagel, B., Paramita, A., and Buhari, N. (2023), "Seafood Consumption Changes and COVID-19 Impact Index in West Nusa Tenggara, Indonesia," *PLoS One*, 18 (1), e0280134.
- Prati, A. (2023), "The Well-Being Cost of Inflation Inequalities." Review of Income and Wealth,"
- Renner, B., Sproesser, G., Strohbach, S., Schupp, H. T. (2012), "Why We Eat What We Eat. The Eating Motivation Survey (TEMS)," *Appetite*, 59, 117–128.
- Rice B., Hernández, M. A., Glauber J., and Vos, R. (2022), "The Russia-Ukraine War is Exacerbating International Food Price Volatility," International Food Policy Research Institute (IFPRI). Washington, DC.
- Robinson, E., Boyland, E., Chisholm, A., Harrold, J., Maloney, N. G., Marty, L., ... Hardman, C. A. (2021), "Obesity, Eating Behavior and Physical Activity during COVID-19 Lockdown: A Study of UK adults," *Appetite*, 156, 104853.
- Rose, A., Chen, Z., and Wei, D. (2023), "The Economic Impacts of Russia-Ukraine War Export Disruptions of Grain Commodities," *Applied Economic Perspectives and Policy*, 45 (2), 645–665.
- Shorr. (2020), "The Food Packaging & Consumer Behavior Report," https://www.shorr.com/resources/blog/2020-food-packaging-consumer-behavior-report/
- Steptoe, A., Pollard, T. M., Wardle, J. (1995), "Development of a Measure of the Motives Underlying the Selection of Food: The Food Choice Questionnaire," *Appetite*, 25, 267–284.
- Tran, D., Broeckhoven, I., Hung, Y., Diem, N. H.; De Steur, H., Verbeke, W. (2022), "Willingness to Pay for Food Labelling Schemes in Vietnam: A Choice Experiment on Water Spinach," *Foods*, 11, 722.
- Wongprawmas. R., Mora, C., Pellegrini, N., Guiné, RPF., Carini, E., Sogari, G., and Vittadini, E. (2021). "Food Choice Determinants and Perceptions of a Healthy Diet among Italian Consumers." *Foods*, 10 (2), 318.
- Xuan, L. (2022), "Russia-Ukraine War: Taiwanese Food Industry is Very Nervous! International Materials May Rise Again, National Development Council: Taiwan's Three Major Food Products are Most Affected," FoodNEXT. https://www.managertoday.com.tw/articles/view/64731
- Yan, H. (2023), "Various Cost Pressures are Increasing, Experts: 75% of Grain Prices Have Nothing to Do with Agricultural Products," TechNews. https://technews.tw/2023/05/08/food-price-inflation-2/#more-1060458