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## Original article

# In the pursuit of a healthier diet among young Chinese adults: identifying important food quality attributes and factors that influence food choices

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**Summary** The paper examines preferences for nutritional and health-related food attributes, the importance placed on intrinsic and extrinsic characteristics of food and the individual, household and psychographic determinants when making choices. To address the lack of empirical studies, the paper estimates Poisson, negative binomial and linear regressions using data from 457 young Chinese adults between 18 and 30 years. The results show a strong preference for nutritional and health-related food attributes. Gender and unemployment are associated with a decrease in the number of nutritional features valued in food choices. In contrast, a higher income and a positive perception of body shape are associated with an increase in the number of valued nutritional features. Also, older individuals assign lower importance to intrinsic and extrinsic characteristics in evaluating food, while larger household size, higher income, and positive body shape perception increase the importance placed on intrinsic and extrinsic characteristics in evaluating food.

**Keywords** Consumer preferences, demographics, economic factors, food choices, health consciousness.

## Introduction

Previous studies have shown that consumers' food choices are driven mostly by traditional intrinsic attributes such as taste, texture, and nutritional value and extrinsic attributes such as cost, labelling, packaging and wellness claims, brand name, and stamp of quality (e.g., Clark, 1998; Espejel *et al.*, 2007; Andreyeva *et al.*, 2010; Verain *et al.*, 2016). However, the changing nature of factors that influence how individuals select, purchase, and consume food warrants further research to meet consumers' evolving needs and preferences. For example, more recently, there has been a marked increase in emphasis on sustainability and health consciousness in food choices (Tong *et al.*, 2020; Iqbal *et al.*, 2021; Li *et al.*, 2022). Thus, there is a gap in understanding how these evolving factors intersect with traditional factors and shape the decision-making process in the current food landscape.

Young adults have emerged as a particularly interesting cohort for studying consumer preferences for specific food attributes and a shift towards healthier

eating habits. This is because, within an increasingly changing society, many factors and forces could influence young consumers' food behaviour (Brown *et al.*, 2000; Vlontzos *et al.*, 2018; Sept, 2019). For example, young adults, often with limited disposable incomes, may be susceptible to the influences of the food environment, particularly regarding factors like cost (Roy *et al.*, 2015). According to Mäkinieemi & Vainio (2014), some of this cohort of young adults are at the beginning of independence in food choice and are mostly consumers of new food products (Grujić & Grujić, 2017). Crucially, the current obesogenic food environment, typified by highly accessible unhealthy foods and drinks, has been associated with an increased risk of chronic disease, particularly among young adults (Roy *et al.*, 2015). This, coupled with the rise of technology and the prevalence of social media platforms, has significantly altered how young adults interact with and perceive food (Rounsefell *et al.*, 2020). Previous studies (e.g., Mastora *et al.*, 2024) also suggest that young consumers possess extensive knowledge on the topic, enabling them to offer a critical opinion.

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In China specifically, the justification for focusing on young adults is numerous. The food market segment for young and middle-aged adults is the largest (Gong *et al.*, 2020). Also, this demographic group is at the intersection of traditional Chinese dietary influences and the increased proliferation of Western foods in China (Xu *et al.*, 2010a, 2010b). Increased weight gain has been reported among Chinese consumers who follow a Westernised dietary pattern (Yu *et al.*, 2015; Chen *et al.*, 2023). Further, there are societal expectations and pressure for males to increase muscle mass, while females face pressure to lose weight (Xu *et al.*, 2010a, 2010b). In contrast to findings in other countries, young Chinese adults are found to be food enthusiasts and more likely to be within the high-income category (Gong *et al.*, 2020). Also, the increased varieties of food and the rise in income levels in China may impact the personal food choices of Chinese adults (Zhu *et al.*, 2013; Zhou *et al.*, 2015). Since the findings from other countries cannot be generalised to China, there is a need to investigate how these specific factors and trends shape the personal food choices of young Chinese adults.

The existing literature lacks a comprehensive investigation of the specific food attributes that young Chinese consumers consider important in their decision-making process. There is also a gap in knowledge regarding the specific nutritional features for which young Chinese consumers are willing to pay more. Similarly, there is limited research on the individual, household, and psychographic characteristics that significantly influence food choices among young Chinese consumers. It has been acknowledged that diets can be improved by obtaining a more detailed understanding of food choices (Hamilton *et al.*, 2000). Therefore, this paper examines the importance young Chinese consumers place on food attributes, the nutritional features consumers will pay more for, and the individual, household, and psychographic characteristics that influence consumer preferences for nutritional and health-related food attributes.

## Materials and methods

This paper analysed the data of 457 young people between 18 and 30 years of age across China and solely or jointly responsible for their food shopping. The categorisation of individuals, aged 18–30 years as young adults, is based on previous studies for example, Tian (2016), Witkop *et al.* (2015), and Zhou *et al.* (2021), and facilitates the comparison of findings within China and globally. Data were collected through an online survey between June and July 2023. The Research Ethics and Integrity procedure at the University of Edinburgh was met before the survey

was conducted. Prior to conducting the survey, informed consent was obtained from all participants.

Participants were prompted to identify features they considered important in their food selections. For instance, they were presented with scenarios, such as during routine shopping, and asked which attributes of food and beverages they would be willing to pay extra for. For example,

Imagine that you are doing your regular shopping. Which of the following feature of food and beverage would you pay more (extra) for?

The attributes included options for added vitamins, dietary fibres, sugar and fat content, type of fats, botanical ingredients, added minerals, sweetener types, and preference for plant-based proteins. In this case, participants' responses ranged from checking the box for 'none' to checking the box for every individual attribute.

Respondents were also asked about the importance they place on health and nutrition, sensory appeal, convenience, quality and safety, economic factors, sustainability and ethics, and medical claims of their food. Specifically,

What is the level of importance of the following to the food you eat on a typical day?

For each one of these, participants' responses were elicited using a Likert scale (0–4), with 0 representing 'Not important at all' and 4 'Absolutely important'. The survey also elicited selected factors important in food product selection including individual and household factors such as age, gender, employment status, income level, household size, and perceived body shape importance.

## Hypotheses

Previous studies have shown that individual, household, and psychographic characteristics influence consumers' attitudes and behaviours concerning both intrinsic and extrinsic attributes of foods. These factors encompass demographics like age, gender, income, education, and cultural background (Zhong & Moon, 2020; Ogundijo *et al.*, 2022; Cardona *et al.*, 2023). For instance, age may play a role in shaping preferences for certain taste profiles, with younger consumers often exhibiting openness to new foods (Gong *et al.*, 2020). Similarly, income levels can impact the affordability threshold and influence decisions related to premium or budget-friendly food choices and prioritisation, for example of quality and health-related attributes (Zhu *et al.*, 2013; Roy *et al.*, 2015; Zhou *et al.*, 2015), while gender may contribute to variations in attitudes towards certain food characteristics (Liu & Grunert, 2020; Zhong & Moon, 2020). Cultural background has

been extensively studied in relation to food preferences, with cultural influences shaping specific food attributes (Lee *et al.*, 2015; Li *et al.*, 2020). Thus, the hypotheses tested are that age, gender, household size, percentage of income spent on food, location in China, and the importance of body shape are likely to influence both the number (count) of nutritional features valued in food choices and the importance placed on intrinsic and extrinsic characteristics in making food choices.

### Analytical methods

Similar to previous food studies (Zimmerman & Shimoga, 2014; Gere *et al.*, 2017; Chekol *et al.*, 2022), the present study utilised a Poisson regression model to investigate the relationship between the number of nutritional features valued in food choices and a set of independent variables on individual and household factors chosen based on theoretical considerations and prior research indicating their potential influence on the count outcome. The general form of the Poisson regression model is given by:

$$\log(\lambda) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k \quad (1)$$

$\log(\lambda)$  is the natural logarithm of the expected count (i.e., the number of nutritional features valued in food choices),  $\beta_0$  is the intercept term,  $\beta_1, \beta_2, \dots, \beta_k$ , are the coefficients corresponding to the independent variables  $x_1, x_2, \dots, x_k$  (gender, age, employment status, region, household size, percentage of income spent on food, body shape). The model parameters ( $\beta$ 's) were estimated using the maximum likelihood estimation (MLE) method.

Further, on the identification of overdispersion in the data a negative binomial regression model was estimated. The negative binomial regression is suitable for situations where the variance of the count variable exceeds the mean. The negative binomial regression model is given by:

$$\log(\text{dispersion parameter}) = \gamma_0 + \gamma_1 z_1 + \gamma_2 z_2 + \dots + \gamma_l z_l \quad (2)$$

where  $\log(\text{dispersion parameter})$  is the natural logarithm of the dispersion parameter,  $\gamma_1, \gamma_2, \dots, \gamma_l$ , are the coefficients corresponding to the independent variables  $z_1, z_2, \dots, z_l$ . The model fit was assessed using goodness-of-fit tests, and the significance of the independent variables was evaluated based on Wald tests. Diagnostic checks, including residual analysis, were performed to ensure the validity of the negative binomial regression assumptions. Lastly, a linear regression was estimated to determine the factors that influence the importance placed on intrinsic and extrinsic characteristics in evaluating food and Mann–Whitney  $U$  test used to test the hypotheses.

### Results

Table 1 summarises the individual, household, and psychographic characteristics of the participants. The majority of the participants were female (68.93%). Regarding age, 18–21 and 22–25 years collectively comprised over 90% of the respondents. Employment status showed a dominance of students (63.68). The representation from various regions of China indicates

**Table 1** Individual and household characteristics of respondents

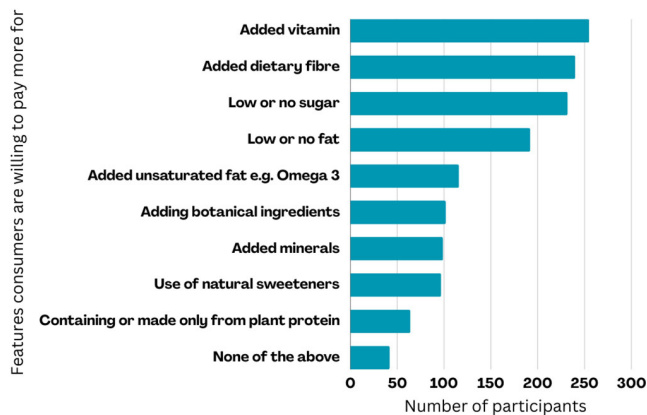
Variable	Category	Freq.	Per cent
Gender	Female	315	68.93
	Male	132	22.88
	Others	6	1.31
	Prefer not to say	4	0.88
Age	18–21	216	47.26
	22–25	211	46.17
	26–30	30	6.56
Employment status	Student	291	63.68
	Employee	102	22.32
	Self-employed	57	12.4
	Unemployed	4	0.88
	Homemaker	3	0.66
Region (Culture)	Northern China	212	46.39
	Southern China	201	43.98
	Central China	44	9.63
Household size	1	2	0.44
	2	10	2.19
	3	155	33.92
	4	183	40.04
	5	72	15.75
	6	23	5.03
	7	6	1.31
	8	2	0.44
	>9	4	0.88
	Percentage of income spent on food	10%–20%	30
21%–30%		183	40.04
31%–40%		178	38.95
41%–50%		52	11.38
51%–60%		8	1.75
>60%		6	1.31
Body shape	Not important at all	16	3.5
	Of little importance	37	8.1
	Of average importance	89	19.45
	Very important	209	45.73
	Absolutely important	106	23.19
Self-report of the level of healthy eating	About Half the time	155	33.92
	Always	66	14.4
	Never	4	0.88
	Seldom	61	13.35
Perception of negative effects of eating habit on physical health	Usually	171	37.42
	Yes	232	50.77
	No	156	34.14
	Neither no nor yes	69	15.1

Source: Authors own.

that Northern (46.39%) and Southern China (43.98%) had a higher number of respondents. Household size varied, with a notable number of respondents living in households with 3–4 members (33.92% and 40.04%, respectively). A significant proportion of the respondents reported spending a substantial part of their income (21%–40%) on food, highlighting its importance in their daily expenses. Many participants placed high importance on body shape (45.73% stated it as very important and 23.19% as absolutely important). The responses varied in terms of self-reported healthy eating habits, with 37.42% usually eating healthily and 33.92% doing so about half the time. Lastly, about half of the respondents (50.77%) perceived a negative effect of their eating habits on their physical health. This perception might be a motivating factor for choosing healthier food options or altering existing eating habits. We revisit this point later.

The summary in Fig. 1 of consumer preferences for nutritional and health-related food attributes showed that the attribute of ‘added vitamins’ emerged as the most frequently selected, indicating a strong consumer preference for vitamin-enriched foods. ‘added dietary fibre’ ranked as the second most popular attribute. Preferences for ‘low or no sugar’ and ‘low or no fat’ options were also prominent. Also, the preference for three and four characteristics was most prominent, with over 40% of participants indicating this. There is a notable decline in willingness to pay more as the number of features increases beyond four, indicating a threshold beyond which additional characteristics may not motivate consumer to pay more.

The results in Table 2 reflect consumers’ strong preference for sensory appeal and health and nutrition when making food choices. Although slightly less critical, convenience factors are still considered ‘Very important’ to ‘Absolutely important’, ‘suggesting that



**Figure 1** Intrinsic nutritional features which consumers will pay more for.

ease of preparation and accessibility are crucial to consumers’ choices. Further, quality and safety were prioritised, with respondents placing high importance on food without additives or artificial ingredients. Similarly, the high score for economic considerations shows a strong consumer preference for affordability and value for money. Sustainability and ethics, although slightly less weighted than health, sensory, and economic factors, were still considered ‘Very Important’, indicating consumer consciousness towards ethical consumption. Notably, medical claims, such as ‘cures illnesses’, are deemed less critical, suggesting that consumers may be sceptical of such assertions or consider other factors more pertinent in their purchasing decisions.

### Results of hypotheses testing

The output in Table 3 presents the results of a Mann–Whitney  $U$  test. The test provides sufficient evidence to conclude that there is a significant difference in the distribution of the number (count) of nutritional features valued in food choices between the two groups defined by household size, income, and body shape. As shown in Table 3, 18- to 21-year-olds had a significantly higher count of nutritional features valued in food choices compared to 22–30 years,  $z = [1.755]$ ,  $P = [.079]$ . Consumers who spend 10%–30% of their income on food had a significantly higher count of nutritional features valued in food choices than consumers who spend 31%–100% on food,  $z = [2.778]$ ,  $P = [.006]$ . Consumers who rate body shape as absolutely and very important had a significantly lower count of nutritional features valued in food choices than consumers who rate body shape as unimportant to average importance  $z = [-4.303]$ ,  $P = [.000]$ . Consumers living alone had a significantly lower count of nutritional features valued in food than in a larger household  $z = [-2.613]$ ,  $P = [.009]$ . The results are similar for the importance placed on intrinsic and extrinsic characteristics in evaluating food, with the exception of age.

### Poisson and negative binomial regression

First, a Poisson regression was estimated to determine factors that influence the number of nutritional features most valued in food choices, i.e., features which consumers will pay more for (Table A1 in the Appendix A). The Poisson model is typically used for count data. The goodness-of-fit for the Poisson regression model was assessed using both the Deviance and Pearson chi-square statistics. The Deviance goodness-of-fit statistic was 874.56,  $\chi^2(492)$   $P < 0.001$ , and the Pearson goodness-of-fit statistic was 776.24,  $\chi^2(492)$ ,  $P < 0.001$ . These results suggest that the model may

**Table 2** Consumer perceptions on the importance of intrinsic and extrinsic characteristics in food evaluation

	Per cent					Modal value
	Not Important	Of Little Importance	Of Average Importance	Very Important	Absolutely important	
<b>Health and Nutrition</b>						
Keep me healthy	1.4	2.8	13.4	47.8	34.6	Very important
Is nutritious	1.4	2.8	18.8	38.8	38.2	Very important
Is low in calories	3.2	10.6	20.2	35.2	30.8	Very important
<b>Sensory Appeal</b>						
Smells nice	1	2.8	12.8	43.8	39.6	Very important
Looks nice	0.4	5.6	19.8	36.2	38	Absolutely important
Has a pleasant texture	1.6	8.2	19.8	33.4	37	Absolutely important
Tastes good	0.4	1.8	8.2	39.4	50.2	Absolutely important
<b>Convenience</b>						
Is easy to prepare	0.6	4.2	19.0	32.0	44.2	Absolutely important
Can be bought in shops close to where I live or work	0.4	3.2	12.2	44.8	39.4	Very important
<b>Quality and Safety</b>						
Contains no non-nutritive additives	3.6	9.4	17.6	40.8	28.6	Very important
Contains no artificial ingredients	3	10.2	24.6	35.4	26.8	Very important
<b>Economic Factors</b>						
Is not expensive	1.2	6.8	19.2	33.4	39.4	Absolutely important
Is good value for money	1	3	11	38.4	46.6	Absolutely important
<b>Sustainability and Ethics</b>						
Has the country of origin clearly marked	5.8	12.8	20	33.8	27.6	Very important
Is packaged in an environmentally friendly way	5.4	10.2	20	33.4	31	Very important
<b>Medical and wellness Claims</b>						
Cures illnesses	11.6	14.6	20.2	30	23.6	Very important

Source: Authors own.

**Table 3** Mann–Whitney *U* tests for hypotheses

Variable	Category	Number (count) of nutritional features valued in food choices		Importance placed on intrinsic and extrinsic characteristics in evaluating food	
		Test statistic	P-value	Test statistic	P-value
Gender	Female	1.693	0.091	-0.923	0.356
	Others				
Age	18–21	1.755 <sup>a</sup>	0.079	0.295	0.768
	22–30				
Employment status	Employed	1.574	0.116	-0.761	0.447
	Others				
Region (Culture)	Southern China	-1.148	0.251	0.231	0.818
	Others				
Household size	1	-2.613 <sup>a</sup>	0.009	1.994 <sup>a</sup>	0.046
	2 and above				
% income spent	10%–30%	2.778 <sup>a</sup>	0.006	3.456 <sup>a</sup>	0.001
	31%–100%				
Body shape	Absolutely and very important	-4.303 <sup>b</sup>	0.000	-6.922 <sup>b</sup>	0.000
	No to average importance				

Source: Authors own.

<sup>a</sup>Fail to reject the hypothesis.

<sup>b</sup>Statistically significant but contrary to a priori expectation.

not adequately fit the data. Due to the potential inadequacy of the Poisson model, a negative binomial regression is then estimated.

The negative binomial regression is often used when count data exhibit over-dispersion. The chi-squared test of the negative binomial regression, which compares the likelihood of the data under the model to the likelihood of the data under a model with only an intercept (no predictors), indicates that the model is significantly better than the null model ( $\chi^2 = 33.84$ ,  $P < 0.001$ ). The LR test of alpha = 0 has a chibar2 (01) of 50.74,  $P < 0.001$ , confirming that the negative binomial model is appropriate due to significant overdispersion.

The results of the negative binomial model in Table 4 show that gender, unemployment, income, and body shape are statistically significant predictors ( $P > |z| < 0.05$ ). Specifically, gender and unemployment have negative coefficients, indicating that being male or unemployed is associated with a decrease in the number of nutritional features valued in food choices. In contrast, income and body shape have positive coefficients, suggesting that a higher income proportion spent on food or a higher perception of the importance of body shape is associated with an increase in the number of nutritional features valued in food choices.

### Linear regression

The *F*-test of the linear regression was estimated to determine the factors that influence the importance

**Table 4** Negative binomial regression of the factors influencing the number (count) of nutritional features valued in food choices

Variable	Coef.		St.Err.
Gender	-0.13	**	0.066
Age	-0.017		0.041
Employment status	-0.081	**	0.039
Region	0.066		0.046
Household size	0.018		0.025
Percentage of income spent on food	0.091	***	0.029
Body shape	0.116	***	0.03
Constant	0.895	***	0.287
Inalpha	-1.906		0.194
Akaike crit. (AIC)	2243.850		
Bayesian crit. (BIC)	2281.781		
Mean dependent var	3.698		
SD dependent var	2.454		
Chi-square	33.836		
Prob >chi2	0.000		
LR test of alpha = 0: chibar2(01) = 50.74			
Prob > = chibar2 = 0.000			

Source: Authors own.

\*\*\* $p < .01$ , \*\* $p < .05$ , \* $p < .1$ .

**Table 5** Linear regression analysis of the factors that influence the importance placed on intrinsic and extrinsic characteristics in evaluating food

Variable	Coef.		St.Err.
Gender	0.678		0.921
Age	-1.193	**	0.585
Employment status	-0.566		0.55
Region	0.331		0.655
Household size	0.804	**	0.358
Percentage of income spent on food	1.18	***	0.428
Body shape	2.86	***	0.408
Constant	37.53	***	4.064
Akaike crit. (AIC)	3642.951		
Bayesian crit. (BIC)	3676.668		
Mean dependent var	47.548		
SD dependent var	9.727		
<i>F</i> -test	9.906		
Prob >F	0.000		

Source: Authors own.

\*\*\* $p < .01$ , \*\* $p < .05$ , \* $p < .1$ .

placed on intrinsic and extrinsic characteristics in evaluating food, indicating that there is evidence to support the idea that the overall model is useful in explaining the variance in the dependent variable. The linear regression results in Table 5 show that age, household size, income, and body shape are statistically significant predictors ( $P > |z| < 0.05$ ). The negative coefficient of age indicates that being older is associated with a decrease in the importance placed on intrinsic and extrinsic characteristics in evaluating food. In contrast, household size, income/food expenditure proportion, and body shape have positive coefficients, suggesting that a larger household, higher proportion of income expenditure on food or a higher perception of the importance of body shape is associated with increased importance placed on intrinsic and extrinsic characteristics in evaluating food.

### Discussion

The prominence of 'added vitamins' aligns with the broader global trend of consumers seeking functional foods that offer health benefits beyond basic nutrition (Kim & Kim, 2015; Clark *et al.*, 2019). Also, the strong preference for 'added dietary fibre,' 'low or no sugar,' and 'low or no fat' options underscores the growing awareness and concern for health and wellness (Nunes *et al.*, 2020). These findings support previous studies highlighting the increasing demand for foods promoting health and sensory appeal (Cornish, 2012; Kim & Kim, 2015) and align with current public health recommendations advocating lower consumption of sugar and saturated fats. The preference

for botanical ingredients and natural sweeteners indicates a demand for products that emphasise natural ingredients, while the interest in plant-based proteins, although less than other attributes, is consistent with a growing movement towards plant-based diets.

The peak at four characteristics could indicate consumers seeking a practical yet health-conscious approach to their food choices, balancing their need for health benefits with considerations like taste, convenience, and price. The findings also reveal a prioritisation pattern where intrinsic product attributes such as health, taste, and safety are considered of high importance. This suggests that with a growing global focus on healthy lifestyles, consumers are increasingly making informed choices that align with their health goals. Other important aspects of the findings are that convenience remains an essential factor, potentially linked to the dynamics of the surveyed demographic. The high rating of economic factors underscores the reality of budget constraints in food choices. Notably, the significance of sustainability and ethics, albeit slightly less than health and sensory factors, reflects a commendable shift towards ethical consumption (Oke *et al.*, 2020). As for the relatively lower importance of medical claims, one could argue that it is indicative of a well-informed consumer base that may prioritise proven nutritional benefits over unverified medical claims.

The findings from the estimation of the negative binomial regression of gender, unemployment, income, and body shape as critical factors influencing the number of nutritional features valued when making food choices support findings from previous studies (Fisher *et al.*, 2016; Ali & Ali, 2020). Notably, the negative coefficients for gender and unemployment suggest a potential vulnerability among certain demographic groups in terms of prioritising nutritional aspects, warranting further investigation.

In the linear regression analysis, the negative coefficient for age aligns with the literature, indicating that younger consumers tend to place higher importance on more attributes and are more open to new food trends (Gong *et al.*, 2020). The positive association of household size, income, and body shape with consumers' perceptions of the importance of key criteria for food evaluation indicates that wealthier, larger households may prioritise various aspects such as taste, nutrition, and convenience, reflecting the diverse preferences and dietary needs of a family unit. Higher income levels, as expected, correlate with increased importance on several evaluation criteria, reflecting the potential for greater financial flexibility to prioritise quality and health in food choices (Drewnowski & Barratt-Fornell, 2004; Siu *et al.*, 2019). The positive association between body shape perception and the importance attributed to food evaluation criteria

suggests a growing awareness of the relationship between diet and health. Body shape perception may serve as a proxy for individuals who actively engage in health-conscious behaviours and are attuned to the nutritional quality of their food choices.

### Implications for consumers, policymaking, public health initiatives, and industry

The results of this paper will equip the wider public with a deeper understanding of the factors influencing food choices and to make more informed and conscious decisions when selecting food products. By aiding informed decision-making, this research can contribute to consumers' overall well-being and satisfaction in the Chinese food market. Consumers also gain insights into influences on food choices beyond their own individual factors. This awareness will help them see these outside factors better, so they can make choices more thoughtfully. Further, consumers will gain the knowledge to advocate for policy interventions that align with their priorities.

Policymakers can utilise the findings of this study to inform public health initiatives aimed at promoting healthier food choices. For example, tailored nutritional education programs and subsidies for nutritious foods could mitigate the disparity in gender and employment towards improving food-related public health outcomes. Additionally, recognising the significance of income and body shape perception in shaping the importance placed on intrinsic and extrinsic characteristics in evaluating food underscores the need for policies that address addressing individual and household disparities in access to healthy and nutritious foods. Also, the findings highlight incentives for food manufacturers to produce affordable, nutritious options that cater to diverse household needs which could be instrumental in promoting healthier diets.

There are implications for industry stakeholders in the Chinese food market. Industry can explore context-specific strategies by recognising the association between individual, household, and psychographic characteristics and nutritional feature valuation. For example, the association between income and body shape perception with nutritional feature valuation opens avenues for premium product offerings. Aligning marketing efforts with the economic capacities of different consumer segments can enable the industry to cater to diverse preferences and enhance the accessibility of healthier food options. Sustainability and ethics, though slightly less critical than health and sensory factors, should not be overlooked. Industry players can use consumer consciousness towards ethical consumption to good advantage by transparently communicating sustainable practices and ethical sourcing, fostering consumer trust and loyalty.



The main limitation of the study population is that it may not adequately represent the general young adult population in China, as potential biases may have been introduced by factors such as education levels and digital access associated with online surveys.

### Suggested future research directions

To further improve our understanding of Chinese consumer preferences, future research could examine other factors, e.g., cultural and contextual influences on food choices. Further, exploring regional variations and urban–rural disparities may reveal distinctions contributing to a more comprehensive understanding of the young Chinese consumer. Qualitative research methods, such as focus groups and in-depth interviews, can provide a deeper understanding of the underlying motivations and perceptions guiding consumer choices.

### Conclusion

This paper examines individual, household, and psychographic factors that shape consumer preferences for nutritional and health-related food attributes among young adults in China. The findings show a preference for food choices emphasising ‘added vitamins,’ ‘added dietary fibre,’ ‘low or no sugar,’ and ‘low or no fat’ options, reflecting an increasing awareness and prioritisation of health-conscious options in the younger demographic. Further, sensory appeal, health and nutrition, convenience, quality, safety, economic factors, and sustainability are as pivotal in shaping consumer decisions. Recognising the influence of individual, household, and psychographic characteristics in food choices will provide a roadmap for tailoring interventions and marketing strategies that resonate with different demographic segments, resulting in more effective approaches to promoting healthier eating habits.

In conclusion, this study contributes valuable insights into the academic discourse and offers tangible recommendations for practical applications. The practical implications of this research are far-reaching. Individuals can make more informed and conscious decisions about their dietary habits by arming the public with a deeper understanding of the factors influencing food choices. Moreover, stakeholders, including government agencies, food manufacturers, and health organisations, can leverage the identified predictors to design targeted public health campaigns, formulate impactful marketing strategies, and inform evidence-based policy interventions.

### Author contributions

**Shuainan Liu:** Conceptualization; methodology; writing – original draft; data curation; visualization.

**Toritseju Begho:** Conceptualization; methodology; writing – original draft; writing – review and editing; visualization; supervision.

### Conflict of interest

None.

### Peer review

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/ijfs.17127>.

### Data availability statement

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

### Ethical guidelines

The survey was approved after being assessed through the Research Ethics and Integrity procedure of the School of Geosciences, University of Edinburgh. Informed consent was obtained from all participants before conducting interviews or surveys. Participants were informed that they had the right to withdraw at any stage or to decline to participate and, should they choose to do so, that there were no implications. The authors did not ask for any personal information which could be directly used to identify individuals. The database was only assessed by the authors at University of Edinburgh/Scotland’s Rural College (SRUC).

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## Appendix A

**Table A1** Poisson regression of the factors influencing the number of nutritional features valued in food choices

Count	Coef.		St.Err.
Gender	-0.125	**	0.053
Age	-0.017		0.033
Employment status	-0.079	***	0.031
Region	0.064	*	0.037
Household size	0.016		0.02
Percentage of income spent on food	0.09	***	0.023
Body shape	0.111	***	0.024
Constant	0.918	***	0.231
Inalpha	-1.906		0.194
Akaike crit. (AIC)	2292.593		
Bayesian crit. (BIC)	2326.310		
Mean dependent var	3.698		
SD dependent var	2.454		
Chi-square	52.612		
Prob >chi2	0.000		
Deviance goodness-of-fit = 874.556			
Prob >chi2(492) = 0.0000			
Pearson goodness-of-fit = 776.243			
Prob >chi2(492) = 0.0000			

The Poisson model's goodness-of-fit tests, with their very low  $P$ -values, indicate a poor fit to the data signalling a sign of over-dispersion. This is further confirmed by the significant improvement in the Negative Binomial model's fit, as indicated by the LR test.

Source: Authors own.

\*\*\* $p < .01$ , \*\* $p < .05$ , \* $p < .1$ .