

# *Perspectives of young adults in the United Kingdom on fast food*

Article

Published Version

Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

Open Access

Er Con, M. and Bennett, R. ORCID: <https://orcid.org/0000-0003-3226-8370> (2024) Perspectives of young adults in the United Kingdom on fast food. *Ziraat Mühendisliği*, 380. pp. 36-46. ISSN 2651-4494 doi: 10.33724/zm.1496351 Available at <https://centaur.reading.ac.uk/119990/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

Identification Number/DOI: 10.33724/zm.1496351  
<<https://doi.org/10.33724/zm.1496351>>

Publisher: Turkish Agricultural Engineers Association

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

[www.reading.ac.uk/centaur](http://www.reading.ac.uk/centaur)

**CentAUR**



# Perspectives of Young Adults in The United Kingdom on Fast Food

## Birleşik Krallık'taki Genç Yetişkinlerin Fast Food'a Bakış Açıları

---

### Sorumlu Yazar

**Meliha ER ÇON**

ermelihaa@gmail.com

✉ 0009-0007-6106-0428

### Yazar

**Richard BENNETT**

r.m.bennett@reading.ac.uk

✉ 0000-0003-3226-8370

### Abstract

With globalisation, consumer food preferences are shifting from home-cooked meals to ready-to-eat foods, leading to various health issues, including obesity. This study aims to examine the attitudes of young adults living in the United Kingdom towards fast food products (particularly a prominent international fast food chain) and their views on the health effects of these foods. Although many studies have been conducted on fast food products, relatively few have specifically focused on an international fast food chain. Additionally, there is a lack of sufficient research in the literature regarding fast food-related waste. This research will also explore young adults' attitudes towards food waste resulting from fast food consumption. An online survey was conducted with a total of 104 young adult participants, aged 18 to 36, who met the study criteria and were selected using a 'convenience sampling' method. The study revealed that an international fast food chain is the most preferred fast food restaurant brand among young adults compared to other fast food restaurants. While the majority of young adult participants believe that fast food has harmful effects on health, they still prefer these foods for reasons such as fast service, affordability, and widespread availability. When investigating food waste, more than half of the male and female participants indicated that they take home food they could not finish at restaurants and consume it later. Although many alternatives are available for managing food

Gönderilme Tarihi :  
Kabul Tarihi :  
:

05 Haziran 2024  
07 Aralık 2024

waste, some participants expressed the belief that such food should be thrown away.

**Keywords:** Fast food, Globalization, United Kingdom, Food waste, Health issues

## Özet

Küreselleşmeyle birlikte tüketicilerin gıda tercihleri ev yapımı yemeklerden hazır gıdalara doğru kaymaktadır ve bu durum obezite gibi çeşitli sağlık sorunlarını beraberinde getirmektedir. Bu çalışma, Birleşik Krallık'ta yaşayan genç yetişkinlerin fast food ürünlerine (özellikle tanınmış bir uluslararası fast food zinciri) yönelik tutumlarını ve bu gıdaların sağlık üzerindeki etkilerine ilişkin görüşlerini incelemeyi amaçlamaktadır. Fast food ürünleri üzerine birçok çalışma yapılmışmasına rağmen, özellikle bu uluslararası fast food zinciri ürünleri üzerine nispeten az sayıda çalışma bulunmaktadır. Ayrıca, fast food kaynaklı atıklarla ilgili literatürde yeterli araştırma bulunmamaktadır. Bu araştırma, genç yetişkinlerin fast food tüketiminden kaynaklanan gıda israfına yönelik tutumlarını da inceleyecektir. Çalışma kriterlerini karşılayan ve «kolayda örneklem» yöntemiyle seçilen, yaşıları 18 ile 36 arasında değişen toplam 104 genç yetişkin katılımcıyla çevrimiçi bir anket gerçekleştirilmiştir. Araştırma, bu uluslararası fast food zincirinin diğer fast food restoranlarına kıyasla genç yetişkinler arasında en çok tercih edilen fast food restoran markası olduğunu ortaya koymuştur. Genç yetişkin katılımcıların çoğunluğu fast food'un sağlığa zararlı etkileri olduğunu düşünse de, hızlı servis, uygun fiyat ve yaygın erişilebilirlik gibi nedenlerle bu yiyecekleri tercih etmektedirler. Gıda israfını araştırırken, erkek ve kadın katılımcıların yarısından fazlası restoranlarda bitiremedikleri yiyecekleri evlerine götürdüklerini ve daha sonra tüketiklerini belirtmiştir. Gıda atıklarının yönetimi için birçok alternatif mevcut olmasına rağmen, bazı katılımcılar bu tür yiyeceklerin çöpe atılması gerektiğine inandıklarını ifade etmişlerdir.

**Anahtar Kelimeler:** Fast food, Küreselleşme, Birleşik Krallık, Gıda israfı, Sağlık sorunları

## Introduction

In research, fast food is defined as satisfying foods that have high sugar and calorie content, low nutritional value, can be prepared in a short time, and are offered

to consumers at low prices (Morse and Driskell, 2009; Tayfun and Tokmak, 2007). According to Dunn et al. (2008), fast foods such as hamburgers, french fries and pizza give individuals a feeling of satiety because their fat and sugar content is high and their nutritional value is low. In many developed countries, people's eating habits have moved away from home-made foods due to the change in family structure, the female population taking a greater role in business life, the increase in family income and the prolongation of working hours (Nielsen and Popkin, 2003; Whitton et al., 2014). Changes in the lives of individuals have caused a shortening of the time devoted to cooking at home, in response to this the food industry has developed ready-made food products (Jekanowski, 1999).

According to a study conducted by Untaru and Ispas in 2013, young people tend to prefer fast food due to various reasons such as the quick service, affordable prices, the widespread availability of fast food restaurants, the ability to socialize in these restaurants, and the convenience of home delivery and takeaway options. In a study conducted by Bayhan et al. (2015) at Pamukkale University, the reasons why students prefer fast food restaurants were listed as delicious and fresh food, cleanliness of the restaurant, and fast service. Fast food products consumed by individuals of all ages can lead to serious health problems, especially in young consumers, such as obesity (Stevenson et al., 2007). Research has shown that the number of obese individuals is increasing worldwide, particularly in the United Kingdom and the United States, where the incidence of obesity has doubled (Stevenson et al., 2007). After analysing the studies in the literature, it has been revealed that young people and children residing in England have a high consumption rate of fast food, despite being aware of the health issues associated with it (Wills et al., 2009).

When we look at consumers' food preferences in recent years, fast food has replaced home cooking in the UK, as in other countries. Fast food consumption plays a big role in the UK, with people getting around 10% of their daily energy from fast food (Remnant and Adams, 2015; Nielsen et al., 2002). Compared to other European countries, England is at the forefront of fast food consumption and there has been an increase of around 35% in the sales of fast

food products in the last decade (Schlosser, 2002; Maguire, Burgoine and Monsivais, 2015).

When examining studies on food, the issue of food waste emerges as a significant problem. Approximately one-third of the food produced worldwide ends up as waste. If this situation continues, it will not be possible to meet the food demands of the world population, which is estimated to reach nine billion by 2050 (Godfray et al., 2010; Parfitt et al., 2010). Studies have shown that when food doesn't meet the consumer's expectations in terms of colour, shape, or taste, it often goes unconsumed and is wasted (Rohm et al., 2017). Marais et al. (2017) stated that when consumers do not like the taste of food, they tend to leave food on their plates, which causes food waste. A lot of research has been done to prevent food waste. As a result of the research, methods such as varying portion sizes in restaurants and labelling menus have been suggested to reduce food waste (Betz et al., 2015; Filimonau et al., 2020).

### **Research Hypotheses:**

Young adults prefer this international fast food chain due to factors such as affordability and fast service.

This international fast food chain is the most preferred fast-food brand among young adults due to its extensive availability and widespread presence.

Food waste in fast food restaurants is of low concern among young adults.

### **Material and Method**

The study presented here examines the attitudes of the young population living in the UK towards fast food and this international fast food chain and the factors influencing them when choosing fast food. The research was carried out using an online platform (Qualtrics) in July 2022, and a survey was conducted with participants aged between 18 and 36 who have internet access, can use a computer or phone, are not visually impaired, and speak English. A total of 116 people participated in the survey

study, but after the elimination of 12 participants who did not meet the survey criteria, analyses were undertaken with the data of 104 participants in total. To enhance the reliability of the survey, a validation process was conducted. A preliminary focus group of five individuals, comprising two master's students and three doctoral candidates, was held via Zoom. Feedback from this group was used to refine the survey questions, ensuring clarity and relevance. The survey was subsequently reviewed by two additional experts in the field, who provided insights on the clarity, accuracy, and cultural appropriateness of the questions. This process aimed to minimize potential biases and improve the validity of the responses collected. The questionnaire was created within the Qualtrics platform, and then a link was sent to participants. Participants were selected using a convenience sampling method. This sampling approach was chosen to facilitate timely data collection from young adults in the UK. The questionnaire was composed of four sections in total: Demographic Factors, Fast Food Consumption, An international fast food chain and Healthy Foods, and Food Waste. The survey questions included 5-point Likert Scale Rating questions, open-ended, multiple choice, ranking and preference questions. The survey results were analysed using SPSS and Excel. The Multinomial Logistic Regression test was employed to analyse the relationships between age, education level, marital status, household income, and the frequency of fast food consumption. This method was chosen because the dependent variable—frequency of eating at fast food restaurants—has multiple categories. Previous studies have demonstrated that the multinomial model is appropriate for analysing dependent variables with more than two options (Yilmaz, 2018).

Within the scope of this study, the University of Reading Ethical Clearance Form (Reference Number: 1910C) was obtained.

## **Results and Discussion**

### **3.1. Demographic Factors**

**Table 1.** Demographic Characteristics of Survey Participants

		Frequency	Percent
Age	18 - 24	24	23.1
	25 - 31	58	55.8
	32 - 36	22	21.2
Gender	Male	40	38.5
	Female	61	58.7
	Non-binary/third gender	1	1.0
	Prefer not to say	2	1.9
Education Level	Secondary to age 18	0	0
	Some University but no degree	2	1.9
	University - Bachelor's Degree	35	33.7
	Graduate or professional degree (MA, MS, MBA, PhD, Law Degree, Medical Degree etc)	67	64.4
Marital Status	Married / In a domestic partnership or civil union	29	27.9
	Single /Divorced /Separated	75	72.1
Household Income	<£15,000	46	44.2
	£15,000 - 29,999	33	31.7
	£30,000 - £49,999	10	9.6
	>£50,000	15	14.4
	<b>Total</b>	<b>104</b>	<b>100.0</b>

**Source:** Data collected by the author

Upon examining the demographic characteristics of the participants, it was found that more than half of them (almost 56%) were between the ages of 25-31. Out of the total number of participants, 61 were women, one identified themselves as the third gender, and two preferred not to specify their gender. Additionally, 67 participants held master's or professional degrees such as MA, MS,

MBA, PhD, Law Degree, or Medical Degree. The majority of the respondents (nearly 67%) were students, while approximately 72% of them were either single, divorced, or separated. Moreover, 46 participants had a household income of less than £15,000 per year, whereas 15 participants had an annual income of over £50,000 (Table 1).

**Table 2.** Parameter Estimates for Age

How often do you eat fast food (as a takeaway, at a restaurant or dine-in)? <sup>a</sup>		Coefficient (B)	Standard Error	Significance
A few times a week	constant	18.307	1.009	<.001
	18-24 years old	.599	4507.074	1.000
	25-31 years old	-16.228	.762	<.001
	32-36 years old	0 <sup>c</sup>	.	.

<b>A few times a month</b>	constant	19.319	.927	<.001
	18-24 years old	-.295	4507.074	1.000
	25-31 years old	-16.578	.625	<.001
	32-36 years old	0 <sup>c</sup>	.	.
<b>Less than a few times a month</b>	constant	18.867	.791	<.001
	18-24 years old	-.094	4507.074	1.000
	25-31 years old	-17.481	.000	.
	32-36 years old	0 <sup>c</sup>	.	.
<b>Never</b>	constant	-.693	6681.641	1.000
	18-24 years old	.000	10275.479	1.000
	25-31 years old	.000	6681.641	1.000
	32-36 years old	0 <sup>c</sup>	.	.

**Source:** Data collected by the author

**Note:** a. The reference category is Every day.

In the analysis shown in Table 2, ‘every day’ was chosen as the reference category, and the frequency of fast food consumption was examined in relation to different age groups. The first set of coefficients (B represents the estimated regression coefficient obtained from Multinomial Logistic Regression analysis, which illustrates the relationship between independent variables (e.g., age, education level) and the dependent variable (fast food consumption frequency)) compares participants who consume fast food ‘every day’ with those who consume it ‘several times a week,’ showing that only individuals aged 25-31 demonstrate statistical significance ( $p<0.01$ ). This trend persists across additional comparisons, with

participants in the 25-31 age range consistently indicating higher fast food consumption.

Further analysis reveals that among participants who consume fast food several times a week, more than half (53.85%) are aged 25-31, and an additional 15.38% are aged 32-36. This finding aligns with previous research indicating that younger adults, particularly those in their twenties, tend to consume fast food more frequently than older individuals (Ağır and Akbay, 2021; Dunn et al., 2008). Similar studies confirm that while older individuals may report “occasional” consumption, younger adults often consume fast food “twice a week or more.”

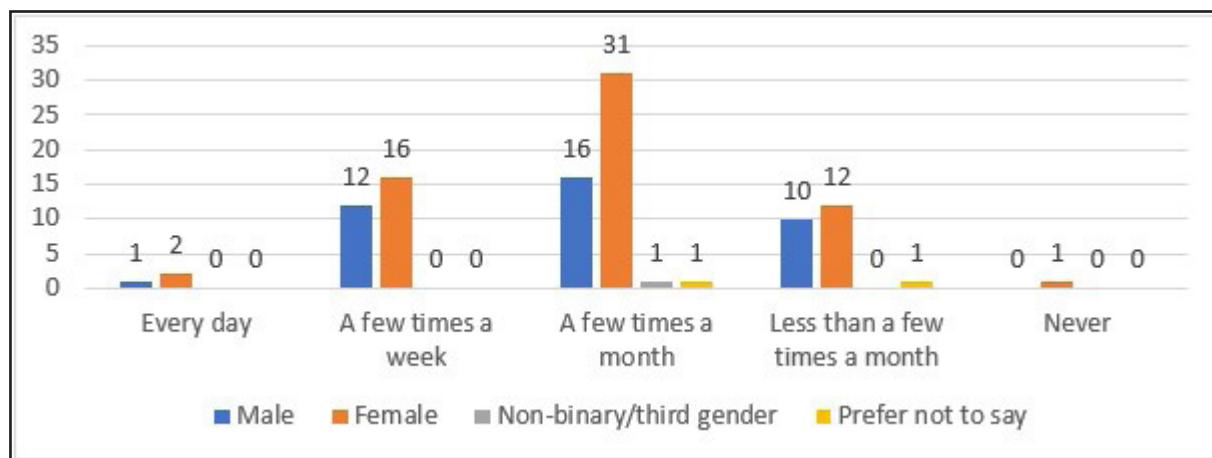


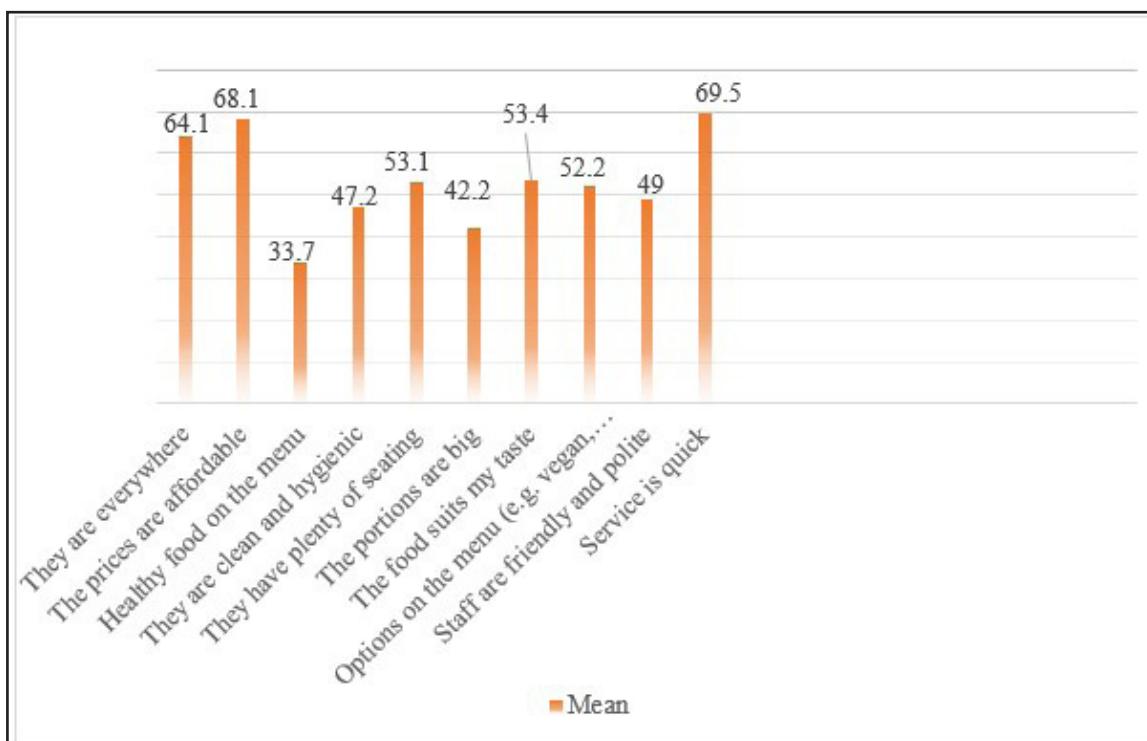
Figure 1. The Relationship Between Gender and Fast Food Consumption Frequency

**Source:** Data collected by the author

To understand whether there is a relationship between gender and the frequency of fast food consumption, the Chi-Square test was performed and it was found that there was no significant relationship between them. When Figure 1 is examined, it is seen that women prefer fast-food restaurants more often than men. While 16 of the women and 12 of the men state that they consume fast food

several times a week, it is a woman who says that she does not consume fast food at all (Figure 1). Contrary to this research, according to many studies, men consume more fast food than women. However, in a study conducted by Ahlgren et al. (2006) in Switzerland, it was found that female consumers tend to consume more fast food than male consumers.

### 3.2. Young Adults and Fast Food Preferences



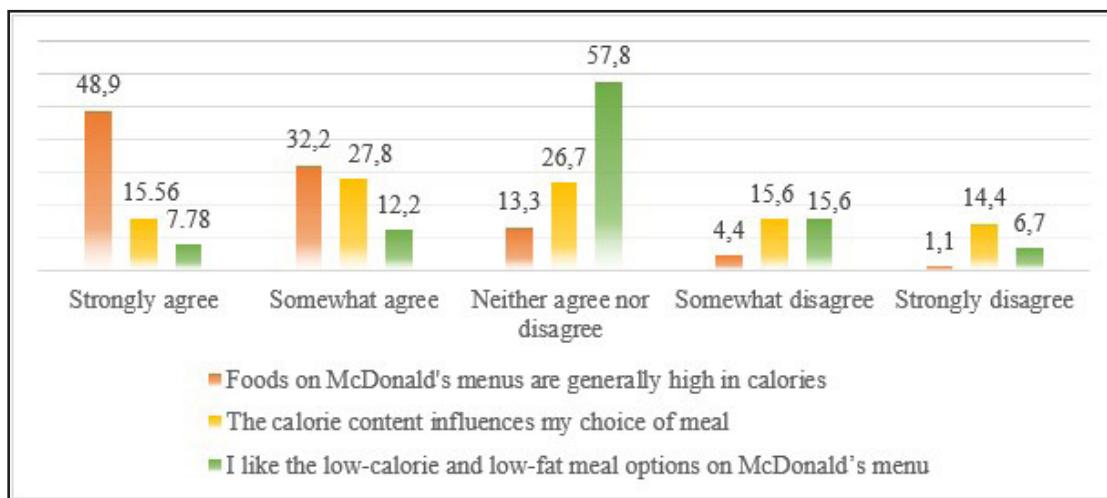
**Figure 2.** Factors That Attract Young Adults to This International Fast Food Chain (%)

**Source:** Data collected by the author

When young adults living in the UK were asked why they prefer this international fast food chain, they listed the most important criteria as fast service, affordable prices and ubiquity (average 69%, 68%, and 64%, respectively). The least effective factor in choosing this fast food chain consumers was determined as "having healthy food on the menu" with almost 33% (Figure 2). According to the results of the study conducted by Sen et al. (2021), one of the most important factors influenced by consumers when choosing fast food in 2021 is the price factor, with a rate of approximately 77%. According to the study by Paudel and

Shrestha (2021), with students, taste and easy accessibility were associated with the reasons why young people prefer fast food at a rate of 91% and 100% respectively. Among the factors affecting the fast food consumption of consumers are cheapness, easy accessibility, time-saving, and the desire to be with friends. According to the results of the survey conducted in Sivas province, the desire to be with friends ranks first among the reasons why high school students prefer fast food products, followed by factors such as the atmosphere of fast food restaurants and the deliciousness of fast food products (Uğur, 2018).

### 3.3. The Relationship Between Health and Fast Food

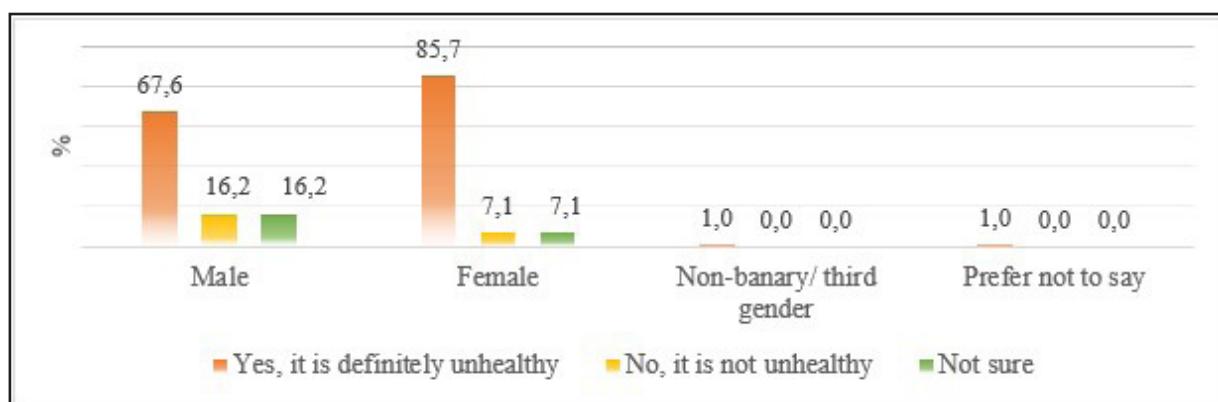


**Figure 3.** Perspective on International Fast Food Chain Menus From Their Calorie Content (%)

**Source:** Data collected by the author

While the majority of young adults surveyed stated that international fast food chain products have a high-calorie content, about 6% stated that they did not agree with the idea that this international fast food chain products have a high-calorie content. In addition, over 43% (15,56% strongly agree, 27,78% somewhat agree) of young adults stated that they paid attention to the calorie content when

choosing a meal at this international fast food chain (Figure 3). Similarly, in a study conducted with participants who prefer fast food restaurants such as McDonald's, Burger King, and Kentucky Fried Chicken (KFC) in New York City, only 9% of the participants stated that they consider calorie labels when choosing food (Elbel, Gyamfi and Kersh, 2011).



**Figure 4.** Young Adults' Perspectives on International Fast Food Chain Menus From a Health Perspective (%)

**Source:** Data collected by the author

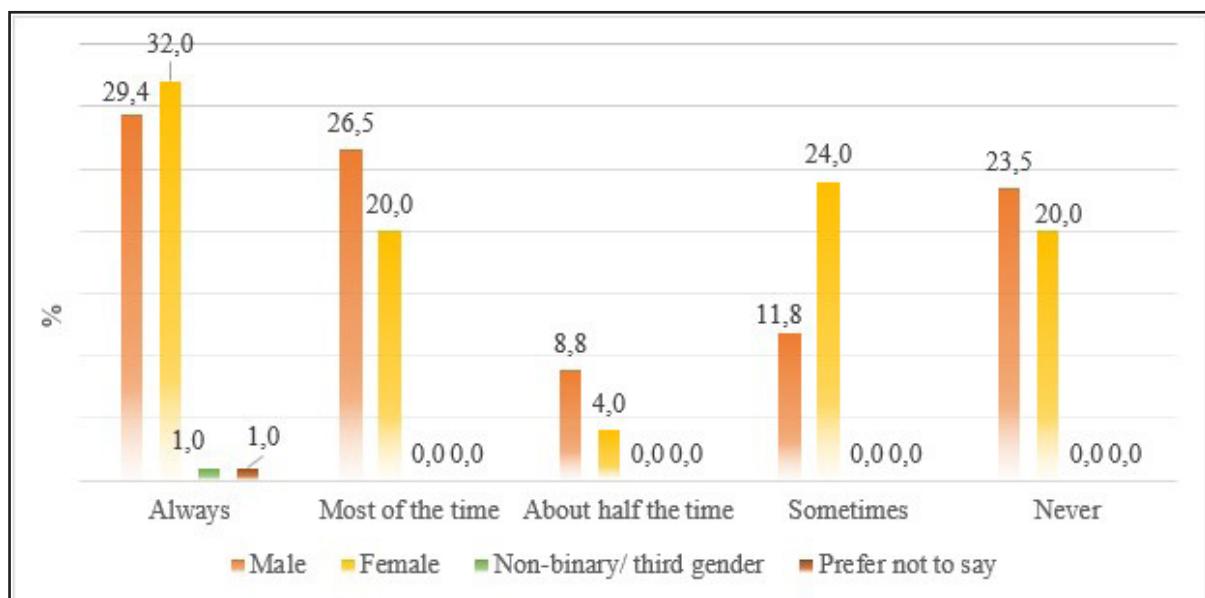
When asked about the effects of fast food products on health, almost 67% of men thought fast food products were

harmful, while early 86% of female consumers stated that fast food products negatively affect human health. On the

other hand, almost 16% of male participants stated that fast food products did not have a negative effect on health, while approximately 7% of female participants stated that fast food products did not harm health (Figure 4). In a survey conducted in India by Goyal and Singh (2007), only 3% of young people defined fast food products as healthy. In the survey conducted with high school students in Sivas province, 44% of the youth stated that fast food products are harmful to health, while 28% stated that they are healthy. At the same time, most of the participants stated that they are aware that fast food products are unhealthy, but they continue to consume them (Uğur, 2018).

### 3.4. Food Waste in the Fast Food Industry

To observe food waste in the fast food industry, the study investigated whether participants paid attention to portion sizes in their orders and how they used the leftovers. While 25 (about 62%) of the young male participants stated that they were careful to order the amount they could eat when ordering fast food, 8 male participants stated that they ordered more than they could eat, and 7 (almost 18%) stated that they did not care about the portion size when ordering. On the other hand, 34 of the female participants stated that they pay attention to the portion size when ordering, while 12 participants stated that the portion size is unimportant.



**Figure 5.** Willingness to Take Leftover Food Home (%)

**Source:** Data collected by the author

When the participants were asked whether they took the leftover food home if the food they ate at fast food restaurants was too much for them, approximately 29% of the young male participants said they always and 26% most of the time wanted to take the leftover food as a takeaway. In comparison, approximately 23% stated that they did not want to take the leftover food home. When the willingness of young female participants to take leftover food as a takeaway was examined, it was determined that

32% of the women always wanted to take leftover food, 20% of them most of the time wanted to take leftover food as a takeaway, while 20% did not feel such a need (Figure 5). According to a study conducted by Giorgi in England in 2013, more than 50% of the participants took home the excess food they could not eat, while approximately 40% of them were hesitant to ask for a container to take the food they could not eat home as a takeaway.



**Figure 6.** Food Waste and Excess Management at International Fast Food Chain (%)

**Source:** Data collected by the author

When asked about how food waste and excess food at international fast food chain should be utilized, approximately 15% of the participants suggested that surplus food should be distributed to employees, 21% recommended donating to charitable organisations, around 13% indicated that surplus food should be used for further meals, 25% suggested composting and about 25% suggested disposal (Figure 6). Many studies have been conducted on the evaluation of food waste. One of these studies is the study conducted by Billiore et al. in Japan in 2021. In the study, some campaigns and slogans were organized for the participants to take home the food they could not eat. The slogans that attracted the most attention from the participants were “If you don’t eat it, bring it home” and “Taste your food twice”.

The findings of this study provide insight into the fast food consumption behaviours of young adults in the UK, validating initial hypotheses regarding their preferences. The international fast food chain is confirmed as the most preferred fast food chain among participants, supporting the hypothesis that its affordability, fast service, and extensive availability make it appealing to young consumers. Additionally, the observed trend of frequent fast food consumption within the 25-31 age group aligns with the hypothesis that younger adults are more inclined toward fast food due to lifestyle factors and convenience.

The data also highlight participants' awareness of the

health risks associated with fast food, with a majority acknowledging its potential negative impact on health. Despite this awareness, fast food remains popular, reflecting a cognitive dissonance where convenience and cost may outweigh health concerns—a finding echoed in the literature. Furthermore, while some young adults demonstrated concern about food waste by opting to take leftovers home, others displayed minimal interest in managing waste. This aligns with the hypothesis that food waste is a low-priority issue for a segment of the young adult population.

## Conclusion

With globalization, factors such as changes in family structures, increases in income, increase in the female population in business life, and long working hours cause individuals' eating habits to shift towards fast food products. With the increase in fast food consumption, various health problems such as obesity, heart failure and diabetes emerge. In this study, the thoughts and attitudes of the young population living in England towards fast food products and an international fast food chain, which is widespread around the world, were examined. The subjects of this research are the reasons why fast food products are preferred, young people's thoughts about the food in these fast food restaurants and the health effects of fast food products, and food waste in the fast food industry.

According to the results of the research, The international fast food chain is the most preferred fast food restaurant among young adults residing in the UK, and most of the participants are aware that over-consumption of these foods can be harmful to health, but continue to consume them. When the reasons why fast food products are preferred by young adults are examined, factors such as being served quickly, affordable prices and being accessible everywhere take the first place. When the participants' awareness of food waste was examined, it was determined that more than half of the participants were conscious of food waste and tended to take home the food left on their plates after eating at restaurants. They expressed their opinions that food waste and excess food generated in restaurants can be managed by composting, distributing to employees, and donating to charities.

### Acknowledgement

In this study, data obtained from the master's dissertation titled "Attitudes of Young Adults to Fast Food and McDonald's in The United Kingdom" were used. I would like to thank the participants who participated in the survey in the study and my advisor, Professor Richard BENNETT, who supported my study. Research data from 2022 was used in this article, and we declare that research and publication ethics were complied with during the conduct of the study and writing of the results.

**Conflict of Interest Declaration:** The authors of the article declare that they do not have any conflict of interest.

**Summary of Declaration of Researchers' Contribution Rate:** In the research, the order of authors according to "Contribution Rate" was followed.

### References

- Ağır, H. B., & Akbay, C. (2021). The analysis of factors affecting frequency of fast food consumption. *Journal of Tekirdağ Agricultural Faculty*, 18(3), 436–445.
- Bayhan, M., Soba, M., & Bildik, T. (2015). Assessment of enterprises in fast food sector with analytical hierarchy process: A case for Pamukkale University. *Journal of Management and Economics Research*, 13(1), pp. 36-47. Available at: <https://doi.org/10.11611/JMER402>.
- Betz, A., Buchli, J., Göbel, C., & Müller, C. (2015). Food waste in the Swiss food service industry—magnitude and potential for reduction. *Waste management*, 35, 218-226.
- Billiore, S., Kobayashi, T., & Wang, O. (2021). Consumer attitudes towards leftover food takeout interventions: A case study of the doggy bag in Japan. *British Food Journal*, 123(9), 3228-3244.
- Dunn, K. I., Mohr, P. B., Wilson, C. J., & Wittert, G. A. (2008). Beliefs about fast food in Australia: A qualitative analysis. *Appetite*, 51(2), 331-334. Available at: <https://doi.org/10.1016/j.appet.2008.03.003>
- Elbel, B., Gyamfi, J., & Kersh, R. (2011). Child and adolescent fast-food choice and the influence of calorie labeling: A natural experiment. *International journal of obesity*, 35(4), 493-500.
- Filimonau, V., Zhang, H., & Wang, L. E. (2020). Food waste management in Shanghai full-service restaurants: A senior managers' perspective. *Journal of Cleaner Production*, 258, 1-13.
- Giorgi, S. (2013). *Understanding out of home consumer Food Waste*. Available at: <https://archive.wrap.org.uk/sites/files/wrap/OOH%20Report.pdf> (Accessed: 1 August 2022).
- Godfray, H. C. J., Beddington, J. R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., ... & Toulmin, C. (2010). Food security: The challenge of feeding 9 billion people. *Science*, 327(5967), 812-818.
- Goyal, A., & Singh, N. P. (2007). Consumer perception about fast food in India: An exploratory study. *British food journal*, 109(2), 182-195. Available at: <https://doi.org/10.1108/00070700710725536>.
- Jekanowski, M. D. (1999). Causes and consequences of fast food sales growth. *Food Review/National Food Review*, 22(1), 11-16.
- Maguire, E., Burgoine, T., & Monsivais, P. (2015). Area deprivation and the food environment over time: A repeated cross-sectional study on fast food outlet density and supermarket presence in Norfolk, UK,

- 1990-2008. *The FASEB Journal*, 29, 132-4.
- Marais, M. L., Smit, Y., Koen, N., & Lötze, E. (2017). Are the attitudes and practices of foodservice managers, catering personnel and students contributing to excessive food wastage at Stellenbosch University?. *South African Journal of Clinical Nutrition*, 30(3).
- Mia K, A., Inga-Britt, G., & Gunnar, H. (2006). Buyers' demands for ready meals— influenced by gender and who will eat them. *Journal of Foodservice*, 17(5-6), 205-211.
- Morse, K. L., & Driskell, J. A. (2009). Observed sex differences in fast-food consumption and nutrition self-assessments and beliefs of college students. *Nutrition research*, 29(3), 173-179.
- Nielsen, S. J., & Popkin, B. M. (2003). Patterns and trends in food portion sizes, 1977-1998. *Jama*, 289(4), 450-453. Available at: <https://doi.org/10.1001/jama.289.4.450>.
- Nielsen, S. J., Siega-Riz, A. M., & Popkin, B. M. (2002). Trends in food locations and sources among adolescents and young adults. *Preventive medicine*, 35(2), 107-113.
- Parfitt, J., Barthel, M., & Macnaughton, S. (2010). Food waste within food supply chains: quantification and potential for change to 2050. *Philosophical transactions of the royal society B: biological sciences*, 365(1554), 3065-3081. Available at: <https://doi.org/10.1098/rstb.2010.0126>.
- Paudel, R., & Shrestha, S. (2021). Awareness and practice of junk foods among adolescents in secondary level students. *Medical Journal of Shree Birendra Hospital*, 20(2), 104-109. Available at: <https://doi.org/10.3126/mjsbh.v20i2.30309>.
- Remnant, J., & Adams, J. (2015). The nutritional content and cost of supermarket ready-meals. Cross-sectional analysis. *Appetite*, 92, 36-42. Available at: <https://doi.org/10.1016/j.appet.2015.04.069>.
- Rohm, H., Oostindjer, M., Aschemann-Witzel, J., Symmank, C., L. Almli, V., De Hooge, I. E., ... & Karantinidis, K. (2017). Consumers in a sustainable food supply chain (COSUS): Understanding consumer behavior to encourage food waste reduction. *Foods*, 6(12), 104.
- Schlosser, E. (2002). *Fast food nation: The dark side of the all-American meal*. New York: Perennial.
- Sen, S., Antara, N., & Sen, S. (2021). Factors influencing consumers' to take ready-made frozen food. *Current Psychology*, 40(6), 2634-2643. Available at: <https://doi.org/10.1007/s12144-019-00201-4>.
- Stevenson, C., Doherty, G., Barnett, J., Muldoon, O. T., & Trew, K. (2007). Adolescents' views of food and eating: Identifying barriers to healthy eating. *Journal of adolescence*, 30(3), 417-434.
- Tayfun, A. and Tokmak, C. (2007). Reasons of consumers to select the turkish fast food restaurant: A case study. *Electronic Journal of Social Sciences*, 6(22), pp. 169–183.
- Uğur, U. (2018). *Gençlerin fast food tüketimlerinin sembolik tüketim kapsamında değerlendirilmesi: Sivas ilinde bir araştırma*. *Akademik Bakış Uluslararası Hakemli Sosyal Bilimler Dergisi*, (67), 1-9.
- Untaru, E. N., & Ispas, A. (2013). Why do young people prefer fast-food restaurants? An exploratory study. *Revista de turism-studii si cercetari in turism*, (15), 27-34.
- Whitton, C., Ma, Y., Bastian, A. C., Chan, M. F., & Chew, L. (2014). Fast-food consumers in Singapore: demographic profile, diet quality and weight status. *Public health nutrition*, 17(8), 1805-1813.
- Wills, W., Backett-Milburn, K., Lawton, J., & Roberts, M. L. (2009). Consuming fast food: the perceptions and practices of middle-class young teenagers. In *Children, food and identity in everyday life*, pp. 52-68. London: Palgrave Macmillan UK. Available at: <https://doi.org/10.1057/9780230244979>.
- Yılmaz, M. (2018) 'Multinomial Logit Model Analysis of Components Affecting The Investment Decisions of Individuals and Firms in Behavioral Economics in A Rationality Perspective View Project'. Available at: <https://www.researchgate.net/publication/335336335>.