



The Impact of Food Advertisements on Buying Decisions and Consumption Patterns among University Students: An Analysis of Gender Differences and Overall Behavior

Ankit Raj ^{a++*}, Anu Ram Kailash Mishra ^{a#}
and Neetu Singh ^{a†}

^a Department of Food and Nutrition, School of Home Science, Babasaheb Bhimrao Ambedkar (A Central) University, Lucknow, Uttar Pradesh, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: <https://doi.org/10.9734/acri/2025/v25i101576>

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://pr.sdiarticle5.com/review-history/145930>

Original Research Article

Received: 10/08/2025
Published: 23/10/2025

ABSTRACT

This cross-sectional study examined the impact of food advertisements on buying decisions and consumption patterns among 130 university students (65 males, 65 females) aged 18-34 years from rural and urban areas, the majority being postgraduate students. The study focused on gender

⁺⁺ Research Scholar;

[#] Guest Faculty;

[†] HOD;

*Corresponding author: Email: ankitraj14854@gmail.com;

differences and overall behavior. Data were collected using a structured questionnaire and analyzed using descriptive statistics and chi-square tests. Results show that over 80% of students reported paying attention to food advertisements, primarily via social media (85.38%) and television (73.07%). Despite this high visibility, only 13.85% indicated that advertisements alone influenced their food choices. Taste (89.2%), price (81.5%), and healthiness (68.46%) were the most important factors guiding food selection. Gender differences were minimal, except that females showed a significantly higher preference for healthy snacks ($p = .034$). Beverages (45.38%) and snack items (24.62%) were most influenced by advertising, whereas home-cooked meals (80%) and desserts (73.84%) remained the most enjoyed. Eating-out behavior was generally infrequent, likely reflecting financial, lifestyle, and educational factors. In conclusion, food advertisements are highly visible and moderately valued but have limited direct impact on students' consumption decisions. The observed preference for healthy snacks among females highlights potential for promoting nutritious options, and marketing strategies may be more effective when emphasizing taste, affordability, and health benefits via digital platforms.

Keywords: Food advertising; buying behavior; consumption patterns; university students; gender differences; age groups; social media; food choice; healthy snacks.

1. INTRODUCTION

In today's digital and media-driven environment, food advertisements play a significant role in shaping consumer behavior, particularly among young adults. These advertisements use persuasive techniques such as emotional appeal, visual imagery, and cultural symbolism to influence purchasing decisions and promote specific food choices (Cairns et al., 2013). University students are a particularly important demographic in this context. They are at a stage of increasing independence and identity formation, often making autonomous food decisions for the first time in their lives (Pettigrew et al., 2012). Their exposure to diverse media platforms, coupled with time and financial constraints, makes them highly susceptible to advertising cues that prioritize convenience, taste, and affordability over nutritional value.

Extensive research shows that food advertisements frequently promote high-calorie, low-nutrient products such as sugary beverages, fast food, and processed snacks (Boyland & Halford, 2013). These ads are designed not only to inform but to persuade and even manipulate, using psychological triggers that create associations between consumption and emotional or social gratification (Andreyeva et al., 2011). Such strategies are particularly effective among university students who engage with media for extended periods and often lack the nutritional awareness or resources to make health-conscious food choices (Marty et al., 2018). Digital marketing through social media platforms has intensified this effect by personalizing advertising content based on user

behavior, thereby increasing both exposure and engagement (Qutteina et al., 2019).

However, individual differences including gender play a critical role in how consumers respond to food advertisements. Research indicates that males are generally more responsive to cues that highlight taste, indulgence, and quantity, while females are more likely to consider nutritional information, emotional value, and product quality (Geuens & De Pelsmacker, 2017; Chernin, 2011). Additionally, gendered media usage patterns can influence advertisement exposure: men are often more engaged with outdoor or digital content, while women tend to respond more to traditional media such as television (Malthouse et al., 2016a,b). These psychological and sociocultural differences may lead to varied interpretations of the same advertisement and ultimately shape different food-related behaviors.

Despite growing interest in the influence of advertising on food choices, there remains a gap in the literature regarding the nuanced ways in which food advertisements affect university students' actual buying decisions and consumption patterns, especially when considering gender differences and overall behavior. Much of the existing research focuses on children or the general adult population, often overlooking the specific behaviors and vulnerabilities of the university student demographic (Kelly et al., 2015). Moreover, while some studies acknowledge gender-based differences in advertisement perception, few have provided a comprehensive comparative analysis that includes media platform usage, attention to ads, factors influencing food choices, and types of food patronized due to advertising.

This study addresses these gaps by examining the impact of food advertisements on the buying decisions and consumption patterns of university students, with a specific focus on both gender differences and overall behavior. It explores how male and female students respond to food advertisements, the platforms through which they are most frequently exposed, and the extent to which advertising shapes their food preferences and perceptions. By adopting a gender-comparative framework, this research offers a more holistic understanding of how advertising influences youth consumer behavior. The insights generated can inform more effective and responsible marketing practices, as well as public health strategies that seek to encourage healthier eating habits among young adults in academic settings.

2. REVIEW OF LITERATURE

This study systematically reviewed peer-reviewed and grey literature from PubMed, Cochrane, Google Scholar, and OATD to examine food and nutrition information and promotion in Ghana. After excluding 1,302 irrelevant or duplicate records, 31 studies were included. Findings showed limited media coverage of undernutrition, while unhealthy foods such as sugar-sweetened beverages, snacks, yogurt, instant noodles, candy, and ice cream were heavily advertised through various channels. Children were frequently targeted via promotional mascots, animations, billboards, point-of-sale displays, and branded books and toys. Key nutrition information sources included television, radio, social media, healthcare professionals, families, and peers. Exposure to televised food ads influenced dietary choices in both children and adults. Radio and television remained dominant traditional media, whereas print newspaper use declined sharply over the past decade. Social media platforms like WhatsApp, Facebook, and YouTube are rapidly expanding in urban areas, especially among youth. Experts call for regulatory actions to address nutrition misinformation and misleading advertising, emphasizing the need to regulate food marketing to foster a healthier food environment in Ghana (Parbey & Aryeetey, 2022).

This investigation focuses on Elina Keramik Bandung, a company that prioritizes marketing for business development. Customers' purchasing decisions are inextricably linked to their marketing strategy. The goal of this study is

to assess the impact of three marketing variables discovered in Elina Keramik, namely brand image, pricing, and digital marketing, on Elina Keramik's consumer purchasing decisions. This study used a quantitative methodology combined with a descriptive strategy. This study employed a sample of 125 Elina Keramik clients. The findings of this study indicate that overall price and digital marketing have a substantial influence on purchasing decisions, with a value of 70.6 percent. Price has a considerable impact on purchasing decisions, with a value of $0.43 < 0.05$. Digital marketing has a large impact on purchasing decisions, with a value of $0.00 < 0.05$. While the variable brand image was deemed to have no influence on purchasing decisions with a significant value of $0.06 > 0.05$ (Hertina et al., 2022).

The goal of this study is to assess the impact of advertising and price on customer purchasing behaviour. The data were obtained using questionnaires with convenient sampling; a sample of 400 questionnaires was given, and 370 complete questionnaires were received from respondents. Data were evaluated using various statistical techniques, including descriptive static, correlation, and regression analysis. The study's findings revealed that advertising and pricing have a major impact on customer purchasing decisions. Gender and academic degree were also included as moderating variables, and they had no significant influence on consumer purchasing decisions (Manandhar., 2020).

The primary goal of this research is to better understand how family members make purchasing decisions as a group by measuring the level of effect that adolescents have on the purchase of numerous selected products. Furthermore, the study looks at whether the adolescent level of influence varies depending on the stages of the purchasing choice process, adolescent gender, and the number of children in the household. The study was conducted in Curitiba, Brazil, and the participants were family members (husband, wife, and an adolescent). The survey included a sample of 93 families, for a total of 279 customers. The findings demonstrate that parents disagree on the strength of influence from their teenage son on particular items; that adolescent gender effects the level of engagement; and that the number of children in the household increases his/her level of participation. Furthermore, a graphic triangle of family member influence is proposed, based on the stage of the purchasing decision process

and the product investigated (Cunha and Neto., 2015).

The purpose of this research wanted to investigate the impact that emotional variables had on people's eating choices. A descriptive cross-sectional study was conducted using a questionnaire with a non-probabilistic sample of 1314 people. The data was obtained from a sample of the Portuguese population to see whether emotional factors influenced people's eating choices. The findings demonstrated that emotional variables had a small influence on participants' meal choices (mean scores ranging from -0.5 to 0.5 on a scale of -2 to +2). There were substantial disparities discovered in all of the variables studied. Participants with a history of binge-eating had the highest mean score (0.63 ± 0.79), indicating emotional influences on their meal choices. These findings confirm the hypothesis that emotional determinants are influenced by individual traits, as well as the existence of a positive relationship between emotional eating and the presence of eating disorders, particularly binge-eating (Guiné et al., 2019).

This study highlights that poor diets contribute more to the global burden of disease than sex, drugs, alcohol, and smoking combined. Sustainable development depends on good health, food security, and nutrition. The way food is cultivated, distributed, processed, marketed, and sold shapes food availability, affordability, and cultural acceptability, which influence dietary choices and diet quality. The complex food system often neglects nutrition and health as key outcomes, creating disconnects between supply chain actors, unlike environmental and labor issues that are better addressed. While food loss and waste are recognized sustainability concerns, their impact on nutrition security is unclear. Balancing agricultural productivity, economic gains, and nutrition delivery requires investment and incentives to diversify production, improve preservation and distribution, and influence consumer behavior. Decisions throughout the supply chain affect preferences, habits, and nutrition. Utilizing the whole food system is an underused approach to tackling unhealthy eating globally (Pretorius et al., 2021).

This report is part of a wider study on health-related dietary choices and analyses how they affect the environment. To meet the research goal, groups of respondents with similar dietary

preferences were established. The authors utilized an algorithm to create classification trees and discovered that respondents' health condition is determined by their age and dietary habits. The paper shows that knowing individual nutritional choices is necessary for changing consumption habits and developing healthy behaviour, which is consistent with the notion of sustainable development through sustainable consumption. The findings are useful to public health researchers and practitioners who want to understand the relationship between nutritional behaviours and health in the context of sustainable growth (Szalunka et al., 2021).

3. RESEARCH METHODOLOGY

This study adopted a quantitative cross-sectional design to investigate the impact of food advertisements on the buying decisions and consumption patterns of university students, with a specific focus on both gender differences and overall behavior. The research was conducted at Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh, India.

A total of 130 students participated, equally divided between 65 males and 65 females, aged between 18 and 34 years. The sample included students from undergraduate, postgraduate, and doctoral programs, selected using non-probability convenience sampling to ensure accessibility and relevance to the study context. Participants came from both rural ($n = 78$; 60%) and urban ($n = 52$; 40%) areas.

Data were collected through a structured questionnaire, administered in both online and offline modes. The instrument covered main factors such as demographics, attention to food advertisements, preferred media platforms, factors influencing food choices, the influence of advertisements on purchase decisions, perceived importance of advertisements, food categories affected by advertising, food preferences, and eating-out frequency. The questionnaire was pre-tested to ensure clarity, coherence, and content validity.

Collected data were analyzed using Microsoft Excel and SPSS. Descriptive statistics, including frequencies (n) and percentages (%), were used to summarize overall and gender-specific responses. To explore associations between gender and categorical variables, Pearson's chi-square tests of independence were applied, with statistical significance set at $p < 0.05$.

The study has several limitations. The use of convenience sampling and self-reported measures may limit the generalizability and accuracy of the findings. Additionally, the cross-sectional design captures data at a single point in time, restricting the ability to draw causal inferences.

The study adhered to strict ethical standards, including obtaining informed consent from all participants and ensuring anonymity and confidentiality throughout the research process.

4. RESULTS

The demographic profile of the participants (N = 130) indicated an equal gender distribution, with 50% identifying as male (n = 65) and 50% as female (n = 65). A majority of the respondents (60%, n = 78) reported residing in rural areas, while 40% (n = 52) were from urban settings.

With respect to age, most participants were between 18 and 24 years old (57.7%, n = 75), followed by those aged 25 to 34 (42.3%, n = 55). Regarding educational qualifications, 53.8% (n = 70) were classified as postgraduate (P.G.), 30.8% (n = 40) as undergraduate (U.G.), and 15.4% (n = 20) as Ph.D. holders.

Monthly income levels varied, with the largest group (28.5%, n = 37) earning between 8k and 15k. Others reported earnings between 2k and 4k (26.2%, n = 34), and between 5k and 8k (24.6%, n = 32). Smaller proportions earned less than 2k (8.5%, n = 11) or more than 15k (12.3%, n = 16).

Regarding sources of income, 56.9% of participants (n = 74) reported receiving financial support from their parents, 14.6% (n = 19) earned through part-time jobs, and 28.5% (n = 37) indicated other sources.

In summary, the sample was evenly balanced by gender, mainly rural residents, largely composed of young adults, with a majority holding postgraduate qualifications, displaying varied income levels, and predominantly reliant on parental financial support (see Table 1).

The study involved 130 university students, equally divided between 65 males and 65 females, who were surveyed about their attention to food advertisements. Among the male participants, 50 (38.46%) reported paying attention to food advertisements, while 15 (11.54%) indicated they did not. Similarly, 55 females (42.31%) reported paying attention,

whereas 10 (7.69%) did not. Overall, the majority of participants (n = 105, 80.77%) reported paying attention to food advertisements, indicating that food marketing is widely noticed among university students regardless of gender. A Pearson chi-square test of independence revealed no significant association between gender and attention to food advertisements, $\chi^2(1, N = 130) = 1.24, p = .266$, suggesting similar levels of advertisement attention among male and female students (see Table 2).

The study involved 130 university students, equally divided between 65 males and 65 females, who were asked about the platforms where they most frequently encounter food advertisements. Among the male participants, 45 (34.61%) reported television, 52 (40.00%) social media, 15 (11.54%) websites, 15 (11.54%) magazines/newspapers, and 25 (19.23%) billboards/outdoor advertisements. Similarly, female participants reported 50 (38.46%) television, 59 (45.38%) social media, 11 (8.46%) websites, 19 (14.61%) magazines/newspapers, and 17 (13.07%) billboards/outdoor advertisements. Overall, social media (n = 111, 85.38%) and television (n = 95, 73.07%) were the most commonly reported platforms, followed by billboards/outdoor advertisements (n = 42, 32.30%), magazines/newspapers (n = 34, 26.15%), and websites (n = 26, 20.00%). A Pearson chi-square test of independence revealed no significant associations between gender and any of the advertisement platforms: television, $\chi^2(1, N = 130) = 0.977, p = .323$; social media, $\chi^2(1, N = 130) = 3.020, p = .082$; websites, $\chi^2(1, N = 130) = 0.769, p = .380$; magazines/newspapers, $\chi^2(1, N = 130) = 0.637, p = .425$; and billboards/outdoor advertisements, $\chi^2(1, N = 130) = 2.251, p = .134$. These results suggest that male and female students similarly encounter food advertisements across various platforms (see Table 3).

The study involved 130 university students, equally divided between 65 males and 65 females, who were asked about the factors influencing their food choices. Among the male participants, 57 (43.8%) reported taste, 51 (39.2%) price, 42 (32.31%) healthiness, 41 (31.5%) convenience, and 26 (20.0%) brand reputation as influential. Similarly, female participants reported 59 (45.4%) taste, 55 (42.3%) price, 47 (36.15%) healthiness, 37 (28.5%) convenience, and 31 (23.8%) brand reputation. Overall, taste (n = 116, 89.2%) and price (n = 106, 81.5%) were the most commonly reported factors influencing food choices,

followed by healthiness ($n = 89$, 68.46%), convenience ($n = 78$, 60.0%), and brand reputation ($n = 57$, 43.8%). A Pearson chi-square test of independence revealed no significant associations between gender and any of the factors: taste, $\chi^2(1, N = 130) = 0.320$, $p = .571$; price, $\chi^2(1, N = 130) = 0.818$, $p = .366$; healthiness, $\chi^2(1, N = 130) = 0.891$, $p = .345$; convenience, $\chi^2(1, N = 130) = 0.513$, $p = .474$; and brand reputation, $\chi^2(1, N = 130) = 0.781$, $p = .377$. These results suggest that male and female students similarly rated these factors as influencing their food choices (see Table 4).

The study surveyed 130 university students, equally divided between 65 males and 65 females, to determine whether they had ever made a food choice solely based on a food advertisement. Among male participants, 7 (5.38%) reported making such a choice, while 58 (44.62%) indicated they had not. Among females, 11 (8.46%) reported making a food choice solely based on an advertisement, whereas 54 (41.54%) did not. Overall, only 18 participants (13.85%) acknowledged making food choices solely based on advertisements, suggesting that while food marketing is noticed, it rarely serves as the exclusive factor in decision-making. A Pearson chi-square test of independence indicated no significant association between gender and making a food choice solely based on an advertisement, $\chi^2(1, N = 130) = 1.03$, $p = .310$, implying that both male and female students were similarly unlikely to base their food choices exclusively on advertising (see Table 5).

The study involved 130 university students, evenly divided between 65 males and 65 females, who were asked about their perceptions of the importance of advertisements. Among males, 4 (3.07%) considered advertisements extremely important, 19 (14.62%) very important, 13 (10%) somewhat important, 19 (14.62%) not very important, and 10 (7.69%) not at all important. Among females, 6 (4.62%) viewed advertisements as extremely important, 23 (17.69%) very important, 16 (12.31%) somewhat important, 13 (10%) not very important, and 7 (5.38%) not at all important. Overall, most participants rated advertisements as either very important (32.31%) or somewhat important (22.31%), with fewer participants rating them at the extremes. A Pearson chi-square test revealed no significant association between gender and perceptions of advertisement importance, $\chi^2(4, N = 130) = 2.75$, $p = .601$,

suggesting similar opinion patterns among male and female students (see Table 6).

The study involved 130 university students, equally divided between 65 males and 65 females, who were asked about the type of food they were more likely to patronize because of advertisements. Among the male participants, 32 (24.61%) reported beverages, 15 (11.54%) pastries, 12 (9.23%) meals, and 6 (4.62%) fruits and vegetables. Similarly, 27 females (20.77%) chose beverages, 17 (13.08%) pastries, 13 (10%) meals, and 8 (6.15%) fruits and vegetables. Overall, beverages ($n = 59$, 45.38%) were the most frequently reported food type influenced by advertisements, followed by pastries ($n = 32$, 24.62%), meals ($n = 25$, 19.23%), and fruits and vegetables ($n = 14$, 10.77%). A Pearson chi-square test of independence revealed no significant association between gender and the type of food more patronized due to advertisements, $\chi^2(3, N = 130) = 0.87$, $p = .832$, suggesting similar preference patterns among male and female students (see Table 7).

The study involved 130 university students, equally divided between 65 males and 65 females, who were asked about the types of food they enjoy. Among the male participants, 45 (34.61%) reported enjoying fast food, 30 (23.07%) healthy snacks, 47 (36.15%) desserts, 49 (37.69%) home-cooked meals, and 21 (16.15%) international cuisine. Similarly, female participants reported 40 (30.77%) fast food, 42 (32.31%) healthy snacks, 49 (37.69%) desserts, 55 (42.31%) home-cooked meals, and 25 (19.23%) international cuisine. Overall, home-cooked meals ($n = 104$, 80.00%) and desserts ($n = 96$, 73.84%) were the most commonly enjoyed food types, followed by fast food ($n = 85$, 65.38%), healthy snacks ($n = 72$, 55.38%), and international cuisine ($n = 46$, 35.38%). A Pearson chi-square test of independence revealed no significant associations between gender and enjoyment of fast food, $\chi^2(1, N = 130) = 0.850$, $p = .357$; desserts, $\chi^2(1, N = 130) = 0.159$, $p = .690$; home-cooked meals, $\chi^2(1, N = 130) = 1.731$, $p = .188$; and international cuisine, $\chi^2(1, N = 130) = 0.538$, $p = .463$. However, a significant association was found between gender and enjoyment of healthy snacks, $\chi^2(1, N = 130) = 4.483$, $p = .034$. These results suggest that males and females similarly enjoy most food types, except for healthy snacks, where a higher proportion of females 32.31% reported enjoyment compared to males 23.07% (see Table 8).

The study involved 130 university students, equally divided between 65 males and 65 females, who were asked how often they eat out at restaurants. Among the male participants, 2 (1.54%) reported never eating out, 28 (21.54%) rarely, 17 (13.07%) once a week, 14 (10.77%) 2-3 times a week, and 4 (3.08%) 4-6 times a week. Among females, 1 (0.77%) reported never eating out, 31 (23.84%) rarely, 15 (11.54%) once a week, 16 (12.31%) 2-

3 times a week, and 2 (1.54%) 4-6 times a week. Overall, the most common response was “rarely” ($n = 59$, 45.38%), followed by “once a week” ($n = 32$, 24.61%) and “2-3 times a week” ($n = 30$, 23.08%). A Pearson chi-square test of independence revealed no significant association between gender and frequency of eating out at restaurants, $\chi^2(4, N = 130) = 1.41$, $p = .842$, suggesting similar eating-out habits among male and female students (see Table 9).

Table 1. Frequency and Percentage Distribution of Respondents' Demographic Characteristics (Overall Sample, N = 130; Male = 65, 50%; Female = 65, 50%)

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	65	50
	Female	65	50
Residence	Rural	78	60
	Urban	52	40
Age	18-24	75	57.7
	25-34	55	42.3
Qualification	U.G.	40	30.8
	P.G.	70	53.8
	Ph.D.	20	15.4
Income	Less than 2k	11	8.5
	In between 2k to 4k	34	26.2
	In between 5k to 8k	32	24.6
	In between 8k to 15k	37	28.5
	More than 15k	16	12.3
Source of income	From Parents	74	56.9
	By doing any part-time job	19	14.6
	Or any other source	37	28.5

Table 2. Frequency and Percentage Distribution of Participants Who Pay Attention to Food Advertisements by Gender (N = 130; Male = 65, 50%; Female = 65, 50%)

Gender	Do you pay attention to food advertisements?(Yes or No)		Total (n, %)
	Yes (n, %)	No (n, %)	
Male	50 (38.46)	15 (11.54)	65 (50.0)
Female	55 (42.31)	10 (7.69)	65 (50.0)
Total	105 (80.77)	25 (19.23)	130 (100.0)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and attention to food advertisements, $\chi^2(1, N = 130) = 1.24$, $p = .266$

Table 3. Frequency and Percentage Distribution of Male (n = 65, 50%) and Female (n = 65, 50%) Participants by Platform Where They Most Frequently Encounter Food Advertisements (Percentages Based on the Total Sample, N = 130; Multiple Responses Allowed)

Gender	Which of the following platforms do you encounter food advertisements the most? (Select all that apply)				
	Television	Social media	Websites	Magazines/ Newspapers	Billboards/ Outdoor advertisement
Male	45 (34.61)	52 (40.00)	15 (11.54)	15 (11.54)	25 (19.23)
Female	50 (38.46)	59 (45.38)	11 (8.46)	19 (14.61)	17 (13.07)
Total	95 (73.07)	111 (85.38)	26 (20.00)	34 (26.15)	42 (32.3)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and the platforms where food advertisements are most frequently encountered, including television, social media, websites, magazines/newspapers, and billboards/outdoor advertisements. No significant associations were found between gender and any of the platforms, $p_s > .05$ for all

Table 4. Frequency and Percentage Distribution of Male (n = 65, 50%) and Female (n = 65, 50%) Participants by Factors Influencing Their Food Choices (Percentages Based on the Total Sample, N = 130; Multiple Responses Allowed)

Gender	Which of the following factors influence your food choices? (Select all that apply)				
	Taste	Price	Healthiness	Convenience	Brand Reputation
Male	57 (43.8)	51 (39.2)	42 (32.31)	41 (31.5)	26 (20.0)
Female	59 (45.4)	55 (42.3)	47 (36.15)	37 (28.5)	31 (23.8)
Total	116 (89.2)	106 (81.5)	89 (68.46)	78 (60.0)	57 (43.8)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and factors influencing food choices, including taste, price, healthiness, convenience, and brand reputation. No significant associations were found between gender and any of the factors, $p_s > .05$ for all

Table 5. Frequency and Percentage Distribution of Participants Who Have Made Food Choices Solely Based on Food Advertisements by Gender (N = 130; Male = 65, 50%; Female = 65, 50%)

Gender	Have you ever made a food choice solely based on a food advertisement? (Yes or No)		Total (n, %)
	Yes (n, %)	No (n, %)	
Male	7 (5.38)	58 (44.62)	65 (50.0)
Female	11 (8.46)	54 (41.54)	65 (50.0)
Total	18 (13.85)	112 (86.15)	130 (100.0)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and making a food choice solely based on a food advertisement, $\chi^2(1, N = 130) = 1.03, p = .310$

Table 6. Frequency and Percentage Distribution of Participants' Perceptions on the Importance of Advertisements by Gender (N = 130; Male = 65, 50%; Female = 65, 50%)

Gender	What is your opinion regarding the Importance of Advertisement?					Total (n, %)
	Extremely important (n, %)	Very important (n, %)	Somewhat important (n, %)	Not very important (n, %)	Not at all important (n, %)	
Male	4 (3.07)	19 (14.62)	13 (10)	19 (14.62)	10 (7.69)	65 (50.0)
Female	6 (4.62)	23 (17.69)	16 (12.31)	13 (10)	7 (5.38)	65 (50.0)
Total	10 (7.69)	42 (32.31)	29 (22.31)	32 (24.62)	17 (13.07)	130 (100.0)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and perceptions regarding the importance of advertisements, $\chi^2(4, N = 130) = 2.75, p = .601$

Table 7. Frequency and Percentage Distribution of Food Types More Patronized Due to Advertisements by Gender (N = 130; Male = 65, 50%; Female = 65, 50%)

Gender	Which type of food more patronized due to advertisement?				Total (n, %)
	Beverages (n, %)	Pastries (n, %)	Meals (n, %)	Fruits and vegetables (n, %)	
Male	32 (24.61)	15 (11.54)	12 (9.23)	6 (4.62)	65 (50.0)
Female	27 (20.77)	17 (13.08)	13 (10)	8 (6.15)	65 (50.0)
Total	59 (45.38)	32 (24.62)	25 (19.23)	14 (10.77)	130 (100.0)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and the type of food more patronized due to advertisements, $\chi^2(3, N = 130) = 0.87, p = .832$

Table 8. Frequency and Percentage Distribution of Male (n = 65, 50%) and Female (n = 65, 50%) Participants by Types of Food They Enjoy (Percentages Based on the Total Sample, N = 130; Multiple Responses Allowed)

Gender	Which of the following types of food do you enjoy? (Select all that apply)				
	Fast Food	Healthy Snacks	Desserts	Home-cooked Meals	International Cuisine
Male	45 (34.61)	30 (23.07)	47 (36.15)	49 (37.69)	21 (16.15)
Female	40 (30.77)	42 (32.31)	49 (37.69)	55 (42.31)	25 (19.23)
Total	85 (65.38)	72 (55.38)	96 (73.84)	104 (80.00)	46 (35.38)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and the types of food enjoyed, including fast food, healthy snacks, desserts, home-cooked meals, and international cuisine. Except for healthy snacks, no significant associations were found between gender and food preferences, $p_s > .05$ for all except healthy snacks

Table 9. Frequency and Percentage Distribution of Eating Out at Restaurants among Participants by Gender (N = 130; Male = 65, 50%, Female = 65, 50%)

Gender	How often do you eat out at restaurants?					Total (n, %)
	Never (n, %)	Rarely (n, %)	Once a week (n, %)	2-3 times a week (n, %)	4-6 times a week (n, %)	
Male	2 (1.54)	28 (21.54)	17 (13.07)	14 (10.77)	4 (3.08)	65 (50.00)
Female	1 (0.77)	31 (23.84)	15 (11.54)	16 (12.31)	2 (1.54)	65 (50.00)
Total	3 (2.31)	59 (45.38)	32 (24.61)	30 (23.08)	6 (4.62)	130 (100.00)

Note. A Pearson chi-square test of independence was conducted to examine the association between gender and frequency of eating out at restaurants, $\chi^2 (4, N = 130) = 1.41, p = .842$

5. DISCUSSION

5.1 Advertisement Attention and Its Limited Behavioral Influence

A large majority of students, over 80% reported paying attention to food advertisements. However, only a small fraction (13.85%) admitted that these advertisements alone influenced their food choices. This suggests that although food advertisements effectively capture attention, they rarely serve as the sole determinant in food purchasing decisions. This aligns with findings by Amevinya et al. (2020), who reported that university students in Ghana frequently noticed food advertisements but these did not significantly alter their eating behaviors. Psychological factors such as pre-existing preferences, social influences, and nutritional knowledge likely mediate the impact of advertisements, limiting their direct behavioral influence.

5.2 Taste and Price as Dominant Food Choice Factors

The data revealed that taste (89.2%) and price (81.5%) as the primary determinants shaping students' food choices, followed by healthiness

(68.46%), convenience (60.0%), and brand reputation (43.8%). These findings correspond with those of Li et al. (2022), who found that taste and affordability were the leading influences on food purchases among university students. The consistency across contexts suggests that sensory appeal and economic considerations are universal drivers of food selection, particularly in young adult populations.

5.3 Social Media and Television as Major Advertisement Platforms

Participants identified social media (85.38%) and television (73.07%) as the main platforms through which they encountered food

advertisements. This reflects global marketing trends in which digital and broadcast media dominate food marketing targeted at young adults, particularly university populations (Kalog, et al., 2022). The predominance of social media highlights the growing importance of online marketing strategies in influencing youth food environments.

5.4 Gender Similarities in Advertisement Exposure and Food Choice

No significant gender differences were found in attention to food advertisements, exposure platforms, or major food choice determinants. These findings parallel those of Dahal et al. (2022), who observed similar patterns among Nepalese university students, though subtle differences in emphasis exist, with males prioritizing sensory appeal and females leaning more towards health considerations. The general similarity suggests that food marketing strategies and food preferences may affect male and female students in largely comparable ways in this context.

5.5 Gender Difference in Healthy Snack Preferences

A noteworthy gender difference emerged in preferences for healthy snacks, with 32.31% of females indicating enjoyment compared to 23.07% of males. This finding aligns with previous research demonstrating that women tend to exhibit greater health-conscious eating behaviors than men (Roininen et al., 2001; Jacob et al., 2023), which may be influenced by societal norms, health awareness campaigns, and higher motivation toward maintaining a balanced diet.

5.6 Advertisements' Influence Versus Actual Food Enjoyment

While beverages (45.38%) and pastries (24.62%) were most strongly associated with advertising

influence, students reported greater enjoyment of home-cooked meals (80%) and desserts (73.84%). This suggests that although advertisements can generate interest in certain products, students' habitual and culturally influenced food preferences remain the primary determinants of consumption. The findings indicate that advertisements may attract attention in specific categories but are less effective in altering established eating habits. Overall, the results highlight a complex interaction between marketing exposure, personal preferences, and cultural eating patterns, rather than a simple cause-and-effect relationship.

5.7 Sample Demographics and Generalizability

The sample consisted of young adults (18-34 years) with equal gender distribution, a rural majority (60%), and most holding postgraduate qualifications. Income levels varied, but many participants reported parental financial support. These characteristics may influence the generalizability of the findings. For example, rural residency and financial dependence may shape exposure to specific advertisement platforms, as well as purchasing power. Future research should examine these demographic factors in greater depth to better contextualize consumer decision-making.

5.8 Limited Eating-Out Frequency and Potential Peer Influence

Eating-out frequency was relatively low, with 45.38% of students reporting they rarely dine out and 24.61% reporting once a week. While peer influence was not directly measured, prior research indicates that social dynamics such as purchasing mimicry where individuals emulate friends' food choices are significant factors impacting food consumption, often exerting stronger influence than advertisements (Gligorić et al., 2024). Given that peer effects may exert stronger influence than advertising, future research should explore these social determinants alongside marketing effects to better understand university students' eating behaviors.

6. CONCLUSION

This study examined the impact of food advertisements on university students' buying decisions and consumption patterns, considering gender differences and overall behavior. Among

the 130 participants (65 males, 65 females) aged 18-34 years, 60% were from rural areas and 40% from urban areas, the majority were postgraduate students, with chi-square analyses revealing no significant gender differences across most variables ($p > .05$), except for healthy snack preferences, where females demonstrated significantly higher enjoyment than males ($\chi^2 = 4.483$, $p = .034$), suggesting a greater health-conscious attitude among female students.

Findings indicate that food advertisements are widely noticed, with over 80% of students paying attention, particularly via social media (85.38%) and television (73.07%). However, only 13.85% reported making food choices solely based on advertisements, suggesting that while marketing effectively raises awareness, it rarely serves as the primary determinant of consumption decisions. Instead, core product attributes taste (89.2%), price (81.5%), and healthiness (68.46%) were the strongest influences on food choice, with no significant gender differences for these factors.

Advertising was most influential for beverages (45.38%) and pastries (24.62%), but had limited impact on meals (19.23%) and healthier options such as fruits and vegetables (10.77%). Despite frequent exposure, students expressed greater enjoyment of home-cooked meals (80%) and desserts (73.84%), emphasizing the enduring role of cultural habits and personal preferences in shaping food consumption. Eating-out behavior was generally limited, with nearly half of participants (45.38%) reporting they rarely dined out, likely reflecting financial considerations, lifestyle patterns, rural residency, and possibly educational commitments.

Overall, food advertisements are highly visible and moderately valued by university students, functioning primarily as a supportive factor that raises awareness and interest but does not override habitual, cultural, or intrinsic determinants of food choice. Marketing strategies targeting university students may be more effective when emphasizing product qualities such as taste, affordability, and health benefits, particularly via digital platforms. The notable preference for healthy snacks among female students highlights opportunities for promoting nutritious options. Future research should examine additional mediating factors, including peer influence, educational level, economic background, and cultural norms, and consider

longitudinal or experimental designs to better understand the causal relationships between advertising exposure and food consumption behaviors.

7. RECOMMENDATIONS AND SUGGESTIONS

7.1 For Companies

Focus on Product Quality, Health Benefits, and Affordability: Consumers prioritize products that offer high quality, tangible health advantages, and reasonable price points. Companies should emphasize these attributes during product development and clearly communicate them in marketing campaigns to meet consumer expectations and differentiate themselves in the competitive market.

Maintain Honesty and Transparency in Advertising: Given the prevalent skepticism about food advertisements, brands must commit to honest, transparent messaging. Avoiding exaggeration or misleading claims fosters consumer trust and builds long-term customer loyalty.

Strengthen Brand Education: Today's consumers seek transparency and wish to understand what they purchase. Brands can build trust and enhance perceived value by providing educational content on product ingredients, sourcing, health benefits, and pricing rationale. Informative advertising encourages confident, informed purchasing decisions and promotes brand loyalty.

Adopt Data-Driven Advertising Strategies: Rather than relying solely on broad demographics like gender, companies should utilize behavioral insights such as customer purchase history and preferences. This targeted approach leads to more relevant, engaging marketing campaigns, improves return on investment, and optimizes advertising budgets.

7.2 For Consumers

Adopt Critical Evaluation of Food Advertisements: Consumers should approach food marketing with a discerning eye, recognizing advertisements as one of many information sources. Cross-checking marketing claims through nutritional labels, credible reviews, price comparisons, and brand

transparency metrics is crucial for informed decision-making.

Make Evidence-Based Food Choices: Food selection should be guided by objective factors such as product quality, nutritional value, price, and sensory attributes like taste. Prioritizing these criteria enhances satisfaction and reduces post-purchase regret.

Support Transparency and Ethical Marketing: Consumers wield influence over industry practices by favoring brands that demonstrate honesty and openness in their advertising. Conversely, they can discourage deceptive marketing by avoiding products from companies that use misleading or manipulative promotions.

7.3 For Universities

Promote Media Literacy Programs: Implement educational initiatives to help students critically evaluate food advertisements, encouraging healthier and more informed food choices.

Encourage Collaboration with Marketers: Work alongside food companies to develop responsible advertising guidelines that align with student health and affordability concerns.

7.4 For Policy Makers

Establish Regulatory Guidelines: Create and enforce policies that ensure truthful, health-conscious, and transparent food advertising targeted at young adults.

Support Public Health Campaigns: Invest in initiatives that raise awareness about healthy eating and encourage critical thinking toward food advertisements.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

Amevinya, G. S., Quarpong, W., & Laar, A. (2020). Commercial food advertising on

- the campus of Ghana's largest university. *World Nutrition*, 11(2), 57–73. <https://doi.org/10.26596/wn.202011257-73>
- Andreyeva, T., Kelly, I. R., & Harris, J. L. (2011). Exposure to food advertising on television: Associations with children's fast food and soft drink consumption and obesity. *Economics & Human Biology*, 9(3), 221–233. <https://doi.org/10.1016/j.ehb.2011.02.004>
- Boyland, E. J., & Halford, J. C. G. (2013). Television advertising and branding: Effects on eating behaviour and food preferences in children. *Appetite*, 62, 236–241. <https://doi.org/10.1016/j.appet.2012.01.032>
- Cairns, G., Angus, K., Hastings, G., & Caraher, M. (2013). Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. *Appetite*, 62, 209–215. <https://doi.org/10.1016/j.appet.2012.04.017>
- Chernin, A. (2011). The effects of food marketing on children's preferences: Testing the moderating roles of age and gender. *Journal of Consumer Research*, 37(5), 898–911.
- Cunha, R. D. A. N., & Neto, P. J. S. (2015). The adolescent influence in family decision-making: Parents perception. *International Business Research*, 8(5), 244.
- Dahal, M., Basnet, A., Khanal, S., Baral, K., & Dhakal, S. (2022). Gender differences in food choice and eating practice and their association with health among students of Kathmandu, Nepal. *Journal of Obesity*, 2022, 2340809. <https://doi.org/10.1155/2022/2340809>
- Geuens, M., & De Pelsmacker, P. (2017). Gender differences in food advertising effectiveness. *International Journal of Advertising*, 36(3), 447–464. <https://doi.org/10.1080/02650487.2017.1354657>
- Glorigić, K., Chiolerio, A., Kıcıman, E., White, R. W., Horvitz, E., & West, R. (2024). Food choice mimicry on a large university campus. *PNAS Nexus*, 3(12), pgae517. <https://doi.org/10.1093/pnasnexus/pgae517>
- Guiné, R. P., Ferrão, A. C., Correia, P., Cardoso, A. P., Ferreira, M., & Duarte, J. (2019). Influence of emotional determinants on the food choices of the Portuguese. *EUREKA: Social and Humanities* (5), 31–44.
- Hertina, D., Novtrianti, N., & Sukmawati, S. (2022). Analysis of buying decision levels based on brand image, price, and digital marketing. *International Journal of Business Ecosystem & Strategy* (2687-2293), 4(1), 87–94.
- Jacob, J. S., et al. (2023). Effect of age and gender on dietary patterns, mindful eating, and eating behaviors among university students. *BMC Psychology*, 11(1), 123. <https://doi.org/10.1186/s40359-023-01290-4>
- Kalog, G. L. S., Kasim, F., Anyebuno, B., Tei, S., Kubuga, C. K., Mogre, V., & Aryee, P. A. (2022). Food advertisement influences food decision making and not nutritional status: A study among university students in Ghana. *BMC Nutrition*, 8(1), 72. <https://doi.org/10.1186/s40795-022-00571-2>
- Kelly, B., Vandevijvere, S., Freeman, B., & Jenkin, G. (2015). New media but same old tricks: Food marketing to children in the digital age. *Current Obesity Reports*, 4(1), 37–45. <https://doi.org/10.1007/s13679-014-0128-5>
- Li, X., et al. (2022). How does the university food environment impact student choices? *Nutrients*, 14(18), 3795. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9090611/>
- Malthouse, E. C., Calder, B. J., Kim, Su Jung, & Vandenbosch, M. (2016a). Evidence that user-generated content that produces engagement increases purchase behaviours. *Journal of Marketing Management*, 32(5–6), 427–444. <https://doi.org/10.1080/0267257X.2016.1148066>
- Malthouse, E. C., Haenlein, M., Skiera, B., Wege, E., & Zhang, M. (2016b). Managing customer relationships in the social media era: Introducing the social CRM house. *Journal of Interactive Marketing*, 27(1), 1–16.
- Manandhar, B. (2020). Impact of advertisement and price on consumer purchase decision. *Management Dynamics*, 23(1), 63–84.
- Marty, L., Chambaron, S., Nicklaus, S., & Monnery-Patris, S. (2018). Learned pleasure from eating: An opportunity to promote healthy eating in children? *Appetite*, 120, 265–274. <https://doi.org/10.1016/j.appet.2017.09.010>
- Parbey, P., & Aryeetey, R. (2022). A review of food and nutrition communication and promotion in Ghana. *African Journal of Food, Agriculture, Nutrition and Development*, 22(2), 19602–19623.

- Pettigrew, S., Tarabashkina, L., Roberts, M., Quester, P., Chapman, K., Miller, C., & Beckford, M. (2012). The effects of television and internet food advertising on parents and children. *Public Health Nutrition*, 15(12), 2207–2216. <https://doi.org/10.1017/S1368980012000937>
- Pretorius, B., Ambuko, J., Papargyropoulou, E., & Schönfeldt, H. C. (2021). Guiding nutritious food choices and diets along food systems. *Sustainability*, 13(17), 9501.
- Qutteina, Y., Hallez, L., Raedschelders, M., De Backer, C., & Smits, T. (2019). What do adolescents see on social media? A diary study of food marketing images on social media. *Frontiers in Psychology*, 10, 2637. <https://doi.org/10.3389/fpsyg.2019.02637>
- Roininen, K., Tuorila, H., Zandstra, E. H., de Graaf, C., Vehkalahti, K., Stubenitsky, K., & Mela, D. J. (2001). Differences in health and taste attitudes and reported behaviour among Finnish, Dutch and British consumers: A cross-national validation of the Health and Taste Attitude Scales (HTAS). *Appetite*, 37(1), 33–45. <https://doi.org/10.1006/appe.2001.0414>
- Szalonka, K., Stańczyk, E., Gardocka-Jałowiec, A., Waniowski, P., Niemczyk, A., & Gródek-Szostak, Z. (2021). Food choices and their impact on health and environment. *Energies*, 14(17), 5460.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of the publisher and/or the editor(s). This publisher and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

© Copyright (2025): Author(s). The licensee is the journal publisher. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:

<https://pr.sdiarticle5.com/review-history/145930>