The Antecedents of Food Spending Habits among Students

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Abstract - In an era of shifting cultural, economic, and dietary landscapes, the study of food spending habits has become extremely important. There is a lack of comprehensive studies on the financial constraints faced by students and how these limitations impact on their food spending choices. This study examines the underlying factors and determinants that influence the food spending habits of students within the context of higher education. The main objective of this study was to examine the antecedents of students' food spending habits. A set of questionnaires was distributed to 107 students at Universiti Teknologi MARA (UiTM) Puncak Alam and analyzed. The result demonstrated that all independent variables (promotional advertisements, personal preferences, and cultural trends) tested in this study have a significant impact on students' food spending habits. Findings from this study would be beneficial to policymakers, businesses in the food industry, and educational institutions in promoting healthier and sustainable food spending habits among students. Hence, it is expected that it can provide valuable insights into various aspects of an individual's life and the broader economy.

Keywords – cultural trends, food spending, personal preferences, promotional ads.

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I. Introduction

As populations grow, urbanization accelerates, and consumer preferences evolve, understanding how individuals allocate their financial resources towards food expenditure becomes a pivotal area of research. Despite the extensive research on consumer behavior and food spending habits, there is still a notable research gap concerning the specific dynamics of food spending habits among students. While some studies have investigated the overall spending behavior of young adults, comprehensive research focusing on the unique challenges and influences that impact the food spending patterns of students is relatively limited.

Food is essential to one's health (Hu, 2002). A healthy diet can help reduce the risk of chronic diseases such as diabetes, cardiovascular diseases, hypertension, and many others (World Health Organization, 2020). Despite Malaysians' desire to eat healthy food, it was reported that about 8.1%, equivalent to 1.7 million people in Malaysia, are currently diagnosed with three major risk factors for cardiovascular diseases, including diabetes, hypertension, and high cholesterol (Jie & Bakar, 2023).

Generally, food choices and intake are important factors that can influence the weight and overall nutritional and health status of an individual (Deliens, Clarys, De Bourdeaudhuij & Deforche, 2014). The nutritional

knowledge and understanding among college students and their food consumption patterns have received global attention (Broccia, Lantini, Luciani, & Carcassi, 2008). As mentioned by El Ansari, Stock, and Mikolajczyk (2012), food consumption may change, especially if students are living away from home.

Developing sustainable food spending habits among students is not only about saving money but also about investing in their physical health, mental well-being, academic success, and long-term financial stability. Therefore, this study aims to examine the antecedents of food spending habits among students within the context of higher education .

II. Problem Statement

Food spending habits are the main topic nowadays as the price of food keeps increasing and influencing how much money humans need to pay to get a decent plate on their table (The Malaysian Reserve, 2022). The choices of foods are becoming more complex, and consumers are faced with making informed decisions based on increasingly diverse factors (Ogundijo, Tas & Onarinde, 2022).

Mohammed Esmail, Salniza, and Sanuri (2018) highlighted that Malaysia's younger population is getting more impulsive with their spending than the older generation. The Sun Daily (2023) reported that college students in Malaysia spend less than RM3 for meals daily due to financial constraints. Despite the implementation of Menu Rahmah, some students resort to eating fewer meals or very simple food, oftentimes lacking in nutrition, to get by and not trouble their families for extra money.

The rising cost of products and services (especially foods) has a significant impact on students, particularly in terms of their financial well-being and stability. Lack of financial literacy exacerbates this issue, as it prevents students from effectively managing their finances and making wise decisions on their spending habits.

Therefore, this study set out (i) to determine whether promotional advertisements play a role in students' food spending habits, (ii) to discover whether students' personal preferences contribute to their food spending habits, and (iii) to identify the impacts of cultural trends on the student's food spending habits. Besides that, several questions have been outlined as follows (i) what are the effects of promotional ads on students' food spending habits? (ii) what is the domination of students' personal preferences on their food spending patterns? and (iii) what is the influence of cultural trends on food spending habits among students?

III. Literature Review

Food Spending Habits

Previous studies by Hoang and Lee (2020) and Tan and Ooi (2018) explain that the degree to which people act or behave is referred to as their habit. This phenomenon also applies to the studies on food spending habits. Meanwhile, Ramya and Ali (2016) mentioned that the consumer buying behaviour is the process of selection, purchases and consumption of goods and services to satisfy the demand. Each person has different needs and desires, which influence their daily spending activities (Tripambudi & Indrawati, 2018).

Due to the rapid growth of urbanization, people's lifestyles have changed significantly. Individuals' eating habits have changed due to their shifting lifestyles (Dowarah, Bhowmic & Chakraborty, 2020). Food purchasing decisions by consumers are dependent on several factors, therefore there is the need for deeper understanding of these determinants to enhance outcome of successful interventions (Hayford, Steiner-Asiedu, & Sakyi-Dawson, 2015).

Promotional Ads

A study by Abu Seman and Segar (2023) revealed that search engine marketing and social media marketing have a positive influence on consumer purchasing choices and suggested that businesses should prioritize search engine and social media marketing in their digital marketing channels.

According to Kalog, Kasim, Anyebuno, et al. (2022), consumers are exposed to a wide range of advertisements through different channels daily, which tends to have an influence on their food decision making. Through advertisements, factors such as perceived quality of product, appearance, convenience, and cost, greatly determine a consumer's food decision making (Hayford, Steiner-Asiedu & Sakyi-Dawson, 2015).

Meanwhile, Ling, Chin, Huat and Poh (2021) mentioned that advertising has no significant influence on the female consumer buying behaviour towards skin care products. However, their findings revealed that sales promotion was found to have a positive impact on buying behaviour of female consumers towards skin care products.

Personal Preferences

Khaniwale (2015) mentioned that personal factors are unique to every individual since they could drive the behaviour of an individual. Furthermore, Grotkamp, Cibis, Nüchtern, Von Mittelstaedt and Seger (2012) in their study emphasized that personal factors as the specific background of an individual's life and living environment,

which influence significantly toward the consumer buying behaviour in making decisions (Bathan, Ababao, Marquez, al., 2019).

According to Lundeberg, Graham and Mohr (2018), most consumers would purchase food products based on their experience of taste, texture, price, and satisfaction. Meanwhile, Narayan and Prabhu (2015) in their study revealed that taste, time, money cleanliness and hygiene are the major factors which have influenced students for fast food.

A study conducted by Abdul Ghafar, Mahmood and Zahiruddin (2023) focusing on "women preference towards purchasing fashion and beauty products" revealed that women are influenced by the availability of products, convenience of purchase, and quality of website when purchasing fashion and beauty products via ecommerce.

Cultural Trends

According to Rozin (1988), culture is a key element that influences consumers' food choices and their food-related attitudes and beliefs. Meanwhile, Kotler and Keller (2016) explained that culture is one element in determining an individual's wants and behaviours. It also influences the pattern of household consumption and decision making (Lawan & Zanna, 2013).

Laaksonen, Ma, Pasanen, et al. (2020) emphasized that consumers' cultural background influences how they perceive food, and this affects how much they will use and accept the food. Cultural trends play a significant role in shaping food spending habits. As societies evolve and cultural norms change, people's preferences, attitudes and behaviours towards food also shift. There are some ways cultural trends influence food spending habits.

IV. Methodology

A survey was conducted among 107 students of the Bachelor of Business and Administration (Hons.) Insurance (BA241) at Universiti Teknologi MARA (UiTM), Campus Puncak Alam, Selangor. A total of 40 items of measurement of food spending habits, promotional advertisement, personal preferences, and cultural trends were used in this study. The data collected were analysed based on the descriptive analysis in examining the antecedents of food spending habits among the students.

V. Results and Findings

The purpose of this study is to examine the antecedents of food spending habits among the students. The result of frequency distribution statistical test showed in Table 1 summarized the demographic characteristics of the respondents in this study.

Item	Profile	Frequency	Percentage (%)
Gender	Male	52	48.60
Gender	Female	55	51.40
Age	18-20	11	10.28
	21-23	80	74.77
	24-26	14	13.08
	27 and above	2	1.87
Scholarship	Yes	54	50.47
	No	53	49.53
Weight	Underweight	13	12.15
	Normal	70	65.42
	Overweight	19	17.76
	Obese	5	4.67

Table 1: Demographic Profile

Table 1 shows that 51.40 percent of the respondents are female, while remaining 48.60 percent are male, making a total number of 107 respondents sampled in this study. In term of age, most respondents were in the range of 21-23 years old (74.77 percent), followed by 24-26 years old (13.08 percent), 18-20 years old (10.28 percent) and 27 years old and above (1.87 percent). Therefore, the majority of the respondents sampled in this study were above 21 years old.

Table 1 also portrays that a higher percentage of respondents received a scholarship, constituting 50.47 percent of the total respondents. On the other hand, the remaining 49.53 percent did not receive a scholarship. On the weight distribution, most of the respondents had a normal weight, representing 65.42 percent of the total respondents. The second most common weight category was overweight, accounting for 17.76 percent of the respondents. The underweight category had a representation of 12.15 percent, while the obese category comprised of 4.67 percent of the respondents.

Item	Mean	Std. Deviation
I eat in the cafeterias provided on campus three (3) times a day.	2.83	1.217
Prices for the food sold on campus are affordable.	3.21	0.962
Outside food is cheaper than the ones on campus.	3.28	1.106
I spend more on food that is popular.	3.28	0.998
I will spend more on food than other essentials.	3.66	0.951
I believe myself to be easily attracted to food as I walked by a shop.	3.63	1.005
I tend to spend more on food than I initially planned.	3.59	1.027
I am willing to spend more on high-quality food products.	3.70	0.913
I consider discounts or promotions when buying food.	3.84	0.973
I carefully track my food expenses.	3.52	1.067
Total Mean Score	3.4551	0.65275

Table 2: Mean Score and Standard Deviation for Food Spending Habits

Table 2 shows the total mean and standard deviation for the ten (10) items constructed in food spending habits (dependent variable). The items were rated based on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Based on the data acquired, the highest mean score for the items in the construct was "considered discounts or promotions when buying food" (M = 3.84, SD = 0.973).

The result indicates that the discounts and promotions can lower the price of food items, allowing the respondents to stretch their budgets and potentially afford items they might not have purchased at full price. This is especially important for students on tight budgets. Meanwhile, the lowest score was for "eating in the cafeterias provided on campus three (3) times a day" (M = 2.83, SD = 1.217). This result might be due to financial constraints, which cause students to prioritize affordability over quantity. Besides that, this might also be due to busy schedules, demanding academic commitments, and extracurricular activities that limit the time available for students to have regular meals.

Item	Mean	Std. Deviation
I think promotional ads influence my food spending habits as a student.	3.68	0.967
I do think promotional advertisements affect my food choices as a		
student.	3.68	0.875
I believe my food spending habits are influenced by promotional	3.64	0.924
advertisements targeted at students.		0.52.
I change my food spending habits based on promotional advertisements specifically designed for students.	3.57	0.933
I feel pressured to spend more on food due to promotional	3.36	0.964
vertisements targeting students.		0.904
I do think promotional advertisements impact my overall food budget as a student.	3.48	0.945
I perceive promotional advertisements to be a driving factor in my		
food-purchasing decisions as a student.	3.67	0.810
I believe that promotional advertisements aimed at students influence my perception of food quality and desirability.	3.60	0.889
I think promotional advertisements shape my perception of what	2.50	0.026
constitutes a healthy and balanced diet as a student.	3.58	0.836
I sometimes resist the influence of promotional advertisements on my	3.59	0.846
food spending habits as a student.	3.37	0.040
Total Mean Score	3.89	0.8989

Table 3: Mean Score and Standard Deviation for Promotional Advertisements

Table 3 shows the total mean and standard deviation for the ten (10) items constructed in promotional advertisements (independent variable). The items were rated based on five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Based on the data acquired, the highest mean score for the items in the construct was "promotional advertisements influenced their food spending as a student" (M = 3.68, SD = 0.967). The result indicates that promotional advertisements, especially those with eye-catching visuals and persuasive messaging, can capture students' attention. This exposure can increase awareness of specific food products or brands, making students more likely to consider purchasing them. The lowest mean score for promotional advertisements was "feel pressured to spend more on food due to promotional advertisements" (M = 3.36, SD = 0.964). This result might

be due to some promotional advertisements are strategically designed to create a sense of urgency, excitement, and perceived value. It often emphasizes limited time offers, exclusive deals, or special discounts. This can trigger a fear of missing out, causing students to feel compelled to take advantage of the promotion before it expires.

Item	Mean	Std. Deviation
I believe my personal preference affects my food choices	3.91	0.807
I do believe that personal preference influences my perception of diet and taste.	3.75	0.837
I agree that taste will affect my food choices	4.00	0.789
I believe that most people are likely into fast food.	3.78	0.974
I choose to spend on buying food based on my budget.	3.85	0.810

Table 4 Mean Score and Standard Deviation for Personal Preferences

Table 4 shows the total mean and standard deviation for the ten (10) items constructed in personal preferences (independent variable). The items were rated based on five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

I agree healthy food is likely more expensive than unhealthy food. 3.94 0.899 believe my personal preference to be a driving factor in my food 3.83 0.758 purchasing decisions as a student. 0.948 I care about what ingredients are in my food intake. 3.68 My personal preference shapes my perception of what constitutes a 3.78 0.769 healthy and balanced diet as a student. My eating behaviour is heavily influenced by taste 3.93 0.780 **Total Mean Score** 3.8449 0.61041

Based on the data acquired, the highest mean score for the items in the construct was "taste will affect their food choices "(M = 4.00, SD = 0.789). Hence, it can be concluded that the sensory experience of taste plays a crucial role in determining what students eat. The lowest mean score for personal preferences was "care about ingredients food intake" (M=3.68, SD=0.948). This can result from limited nutritional education or a lack of understanding about how ingredients can impact their health.

Table 5: Mean Score and Standard Deviation for Cultural Trends Item Mean Std. Deviation I believe cultural trends have affected my food spending habits. 3.81 0.837 3.81 0.848

I would find any differences in the food spending habits among different ethnic groups, especially regarding their eating habits. I agree that health and wellness in food consumption are influenced 3.79 0.855 by cultural trends. As a student, I have begun considering the food's country of origin 3.53 0.904 when making purchasing choices regarding food consumption. I believe my food consumption has impacts on my income, including 0.718 3.89 its overall amount, composition, diversity and intensity on cultural trends. I do think that students have a significant influence on willingness to 3.75 0.825 pay extra for health and wellness food spending habits on cultural I think urban food consumption and production practices have brought 3.73 0.842 significant environmental changes in cultural trends. I do think that the cultural trends play a pervasive role throughout the 3.74 0.769 entire global food consumption. As a student, food spending habits on high levels of risk in safety can 3.75 0.848 be acceptable due to cultural trends.

In my opinion, people's preferences, attitudes and also behaviours towards food are influenced by cultural trends in food spending	3.77	0.747
habits.		
Total Mean Score	3.8	0.8193

Table 5 indicates the total mean and standard deviation for the ten (10) items constructed in cultural trends (independent variable). The items were rated based on five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The result indicates a willingness to explore and understand the variations in food spending habits among different ethnic groups, with a particular focus on their eating habits. The mean rating of 3.81 suggests a high level of interest in this topic, while the standard deviation of 0.848 indicates that there may be some diversity in opinions among respondents. Meanwhile, the mean rating of 3.53 suggests a moderate level of adoption of this behaviour, and the standard deviation of 0.904 indicates that opinions and practices might differ considerably among students.

VI. Discussion

Research Question 1: What are the effects of promotional ads on students' food spending habits?

The mean score for the items related to promotional advertisements ranged from 3.36 to 3.68, with a total mean score of 3.89. The standard deviation values ranged from 0.810 to 0.967, suggesting some degree of agreement among respondents but also some variability in their responses.

Overall, the results indicate that promotional advertisements have a significant impact on students' food spending habits. Most of the respondents agreed that promotional advertisements influence their food choices and spending behaviour. This suggests that promotional advertisements play a role in shaping their preferences and decisions related to food consumption.

One interesting finding is that students perceive promotional advertisements to be a driving factor in their food-purchasing decisions. This implies that promotional campaigns targeted at students are successful in influencing their spending habits.

The perceived influence of promotional advertisements on students' perception of food quality and desirability is also notable. This suggests that these ads not only impact their spending behaviour but also shape their perceptions of food products. It's worth noting that while promotional advertisements have a significant effect on students' food spending habits, some respondents indicated that they sometimes resist this influence. This indicates that while promotional ads may sway their decisions, there are instances where students actively try to resist the appeal of these ads and make more rational choices.

Additionally, the finding that promotional advertisements impact students' overall food budget is noteworthy. This suggests that students' spending patterns and budget allocation for food are influenced by the promotional campaigns they encounter.

In summary, the findings suggest that promotional advertisements have a considerable influence on students' food spending habits. They affect their choices, perceptions, and overall budget allocation for food. However, it's essential to consider that while these advertisements are influential, students may also exhibit some resistance and exercise their discretion in making food spending decisions. Overall, promotional campaigns play a significant role in shaping students' food consumption behaviour and preferences.

Research Question 2: What is the domination of students' personal preferences on their food spending patterns?

Based on the research findings, the students' personal preferences play a substantial role in influencing their food spending patterns. The mean score for personal preferences was 3.8449, with a standard deviation of 0.61041. This indicates that, on average, students tend to moderately agree that their personal preferences significantly impact their food choices and decisions related to food spending habits.

The relatively low standard deviation suggests that there is some level of agreement among the respondents regarding the influence of personal preferences on food spending patterns. Looking at the individual questionnaire items, the highest mean score of 4.00 was observed for the statement "I agree that taste will affect my food choices". This indicates that students strongly believe that their taste preferences heavily influence the foods they choose to buy. Taste is a crucial factor in decision-making, and students are more likely to spend on foods they find enjoyable and palatable.

On the other hand, the lowest mean score of 3.68 was recorded for the statement "I care about what ingredients are in my food intake." While still indicating agreement, this suggests that students might not give as much priority to scrutinizing the ingredients in their food as they do to taste and other personal preferences. They might be more focused on satisfying immediate cravings rather than considering the nutritional aspects of their food choices.

Overall, the research findings highlight that students' personal preferences hold significant sway over their food spending habits. Taste preferences and immediate gratification seem to be prominent factors that influence their choices. Food preferences are the evaluative attitudes that people express toward foods. Food preference plays a very important role in the formation of undesired eating habits for students.

The students' personal preferences for certain foods may influence their food spending patterns, as they are likely to spend more on foods they enjoy and prefer. However, it's crucial to note that personal preferences are not the only factor at play; other aspects such as budget constraints, cultural trends, and promotional advertisements also contribute to students' overall food spending patterns. Therefore, while personal preferences play a dominant role, a holistic understanding of the various factors is essential in shaping strategies to promote healthier and more sustainable food spending habits among students.

Research Question 3: What is the influence of cultural trends on food spending habits among students?

The research findings indicate that cultural trends play a significant role in influencing food spending habits among students, with a total mean score of 3.80 and a standard deviation of 0.8193. The relatively high mean score suggests that students generally agree that cultural trends impact their food spending habits. This finding highlights the importance of cultural factors in shaping dietary choices and consumption patterns, reflecting the diverse backgrounds and cultural influences of the student population.

The highest mean score in the specific factors related to cultural trends is 3.89, with a relatively low standard deviation of 0.718. This score indicates a strong belief among students that their food consumption habits have a significant impact on their income, including the overall amount, composition, diversity, and intensity of the cultural trends. This suggests that students are conscious of how their food spending habits align with cultural values and traditions and how these habits can affect their financial decisions. The high mean score and low standard deviation indicate a relatively consistent agreement among students regarding this specific aspect of cultural influence on food spending habits.

On the other hand, the lowest mean score related to cultural trends is 3.53, with a standard deviation of 0.904. This score reflects a moderate level of agreement among students that they have started considering their country of origin when making food purchasing decisions.

Cultural significance and authenticity of food items become crucial factors influencing their spending habits. While the mean score is lower than some other factors, the standard deviation indicates a considerable diversity in opinions among students, suggesting that some may be more influenced by the country of origin than others.

Overall, the research findings demonstrate that cultural trends significantly impact food spending habits among students. Cultural diversity and appreciation for different cuisines play a vital role in their dietary choices, with some students being more mindful of the country of origin when making food purchases.

Additionally, students believe that their food spending habits have implications for their income and financial decisions, reflecting the intertwined relationship between cultural values and economic considerations. Understanding the influence of cultural trends on food spending habits is crucial for promoting cultural awareness and inclusivity among students. Policymakers, businesses, and educational institutions can use these insights to develop culturally sensitive approaches to promote healthier and sustainable food spending habits among the students. By acknowledging and embracing cultural influences on food spending, we can foster an environment that celebrates diversity and encourages students to make informed and mindful choices about their dietary preferences and expenditures.

VII. Conclusion

It is essential that educational institutions acknowledge the significance of addressing food spending patterns among students. Students at universities can be enabled to make decisions regarding their diets that are both healthier and more educated if recommended strategies such as awareness campaigns, seminars on financial literacy, and cooperation with student organisations are put into action. These activities will lead to greater academic achievement, general well-being, and the development of a sustainable food culture on campus.

An awareness of the food spending behaviours of students and to address those spending habits to establish a healthy food culture on campus, promote better eating habits, and improve financial literacy. Universities could positively impact the dietary choices of their students by implementing preventative steps, which can ultimately lead to improved health outcomes and an exciting academic environment. For a thorough knowledge of food purchasing patterns, further study is required to investigate the long-term effects that students' food choices have on their health, the efficacy of treatments, and the role that other factors play in the decision-making process.

In conclusion, studying food spending habits offers a multidimensional perspective on individuals' lifestyles, societal trends, economic dynamics, and health outcomes. These insights can guide policies, interventions, and strategies aimed at improving nutrition, health, and overall well-being.

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Conflict of Interest

The authors declare no conflict of interest.

Author Contribution

Introduction, Mohd Faizol Rizal; Literature Review, Mohd Faizol Rizal, Murni Zarina, Aliff Firdaus, Misha Effida Jeslina, Muhammad Aidil Iqmal, Amirul Haiqal, Asma Nazihah; Validation and Analysis, Murni Zarina, Aliff Firdaus, Misha Effida Jeslina, Muhammad Aidil Iqmal, Amirul Haiqal, Asma Nazihah; Writing - review and editing, Mohd Faizol Rizal, Murni Zarina. All authors have read and agreed to the published version of the manuscript.

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