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The Factors That Influence Youth Consumption of Junk Food

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Abstract

The rapid development of technology in the food industry has increased the number of junk food products consisting of various types and flavors. Moreover, the number of junk food consumers among the youth is also increasing along with the food industry's development. Hence, this research is conducted to determine the factors that influence youth intake and junk food consumption. This quantitative study was conducted by distributing a self-administered questionnaire involving 365 respondents from Universiti Teknologi MARA Cawangan Pulau Pinang Kampus Permatang Pauh and analyzed using Statistical Package for the Social Sciences (SPSS) version 21. The results showed a positive relationship between food trends, parental control, and friends' influence on junk food consumption.

Keywords

Junk Food, Youth, Obesity, Overweight, Food Trends

1   Introduction

Junk food (JF) is defined as a food that is readily available, usually inexpensive, and may or may not be nutritious (Mandoura, Al-Raddadi, Abdulrashid, Usman Shah, M. Kassar, Adel Hawari and Jahhaf, 2017). According to Mirhadyan, Latreyi, AfsanehPasha, Kazem and Leili (2019), Michael Jacobson, director of the Center for Science, coined the phrase "junk food" in 1972 to describe salty and sugary snacks, fried fast food, and sweet carbonated drinks. Cereal, candy, carbonated drinks, chocolate cake, ice cream, and fast food are considered junk food (Boylan, Hardy, Drayton, Grunseit and Mihrshahi, 2017). Meanwhile, pizzas, burgers, and sandwiches fit under this category due to their ingredients and cooking techniques (Mirhadyan et al., 2019). Junk food is also known as

HFSS food (high in saturated fat, salt, or sugar) because it is high in calories, processed sugar, white flour, trans-fat, polyunsaturated fat, salt, and other food additives like monosodium glutamate (MSG) and tartrazine, low-nutrient and energy-dense (LNED), and deficient in protein, vitamins, and fiber, which are harmful to the body when consumed for a long period of time. Junk food is well-liked because it is easy to produce, easy to consume, tasty, and has a lengthy shelf life that may not require refrigeration (Rajveer & Monika, 2012).

In addition, nowadays, eating fast food at the restaurant or buying ready-to-eat food at the convenience store is replacing the tradition of having a family dinner at home (Mandoura et al., 2017). This is due to time constraints when buying groceries and preparing home-cooked food at home. According to some recent surveys, more than one-third of Americans eat fast food twice or more each week. Eating junk food for enjoyment, taste, laziness, friends' companionship, independence, and the ease of these facilities are additional causes of this bad practice. These unhealthy habits negatively impact health in several ways (Mandoura et al., 2017).

Recent research has indicated a rising number of people eating junk food consumption, especially adolescents and young adults (Mandoura, et al., 2017). The World Health Organization estimates that more than 1.9 billion adults aged 18 years and older were obese in 2016 and 39% of adults aged 18 years and over (39% of men and 40% of women) were overweight. Overall, about 13% of the world's adult population (11% of men and 15% of women) were obese in 2016. The worldwide prevalence of obesity nearly tripled between 1975 and 2016 (World Health Organization, 2021). According to Ministry of Health Malaysia (2023), the prevalence of overweight and obesity among children and adolescents has risen over the years. Up to 30% of Malaysian kids were discovered to be obese or overweight due to the availability of junk food in school (Levasseur, 2021).

To counteract the rising obesity epidemic among children, a group of academics and nutritionists has suggested that junk food commercials be prohibited during programming aimed at those under the age of 18 (Vijaindren, 2019). According to current research, more than 1.65 million children are estimated to be overweight or obese by 2025. The findings indicate that more than 88,000 children would have impaired glucose tolerance, 28,000 would have type 2 diabetes, 191,000 would have high blood pressure, and 264,000 would have early fatty liver disease (Vijaindren, 2019). Accordingly, it is confirmed that continuous eating of junk food will cause children and adolescents to have a high risk of obesity and overweight. This scenario will be continuously impacted at young age where the same lifestyle is still applied.

There is an increase in cases of health problems involving youth that are caused by junk food consumption. In 2019, the New Straits Times published an article related to an unhealthy diet and sedentary lifestyle that cause a rising number of deaths among youth. Obesity, hypertension, diabetes, heart issues, and many other diseases result from unhealthy habits. In contrast to the elder generation, today's young adults are less active by watching more television, playing video games, and consuming less healthy food resulting from food advertisement (Mandoura, et al., 2017). To their disadvantage,

high-fat, high-sugar, and high-sodium fast food is becoming a mainstay and contributing to obesity and overweight rates (Yunus & Mohamed Radhi , 2019). They have a greater body mass index (BMI) and a larger percentage of body fat due to a decrease in energy expenditure and an increase in dietary energy intake (Mohd Sidik & Ahmad, 2004).

On the other hand, with a compact schedule of education activities and works, students and employees are very busy. Their busyness has had a significant negative influence on living a healthy lifestyle. Young adult or youth refers to those persons between the ages of 15 to 24 years old (United Nations, 2023). Youth is a critical stage in the development of the human body and mind. At that age, it is critical to get a balanced, nutrient-rich diet (Dasanayaka & Priyanath, 2022). As they become increasingly dependent on fast food, young adults are veering away from healthy eating habits. They enjoy eating fast food after school and work. Opting for junk food because it is quick and saves time. Zahra, Ford, and Jodrell (2014) reported that the result of their survey of 30 schools in a British city that consisted of 10 645 participants from age 12 to 16 years old showed that 17.2% ate junk food every day.

Even though there have been numerous studies in the field, there are still several research gaps. Firstly, there is a scarcity study on how food trends influence youth intake and junk food consumption. Based on the literature reviewed, most of the previous studies on junk food consumption were conducted in western countries. Current research states that not just in America but also in other regions of Saudi Arabia, carbonated soft drinks have been reported to be the most often ordered beverage with food (Mandoura et al., 2017). This could be related to the fact that in their society, they usually consume fast food when they hang out with friends on weekends (Mandoura et al., 2017). Recent studies of Americans show that more than one-third of Americans eat junk food twice or more every week (Mandoura et al., 2017). Meanwhile, in Jeddah city, the result shows that 36% of female participants above 18 years old eat junk food more than twice per week (Mandoura et al., 2017). It shows that Saudi adults have a high prevalence of junk food consumption.

However, research conducted by The Statistic Portal (2016) shows that 47.08% of the 24,912 respondents in Malaysia eat fast food less than once per week. Recently, consuming Korean instant noodles and bubble milk tea has been a food trend in Malaysia, especially among youngsters. In addition, the residential college's distance from the cafe is also one of the reasons why students prefer to eat instant noodles during dinner (Sogari, Argumedo, Gómez, & Mora, 2018). A 2020 survey that has been conducted in Malaysia shows that the demand for instant noodles reached 1.57 billion servings (Hirschmann, 2021), and 76% of the 10 118 respondents aged 16 years and older prefer to order fast food on food delivery apps rather than local cuisine (Ward, 2020). For university students with families of lower income, they prefer to consume junk food because the price is low, convenient, and affordable compared to healthy food (French, Tangney, Crane, Wang, & Appelhans, 2019). According to Shimul, Cheah, and Lou (2021), the healthcare professionals indicated that consuming junk food more than once a week in the dietary pattern is inimical. It shows that there are abundant saturated fats in pizza, fried chicken, hamburgers, and chips; too much saturated fat in the diet

causes people to gain weight and become obese, while being overweight is harmful to heart health and causes other diseases.

Secondly, the association between parental control and junk food consumption among youth is likewise an unresolved question. Parental control can be one of the factors that can influence junk food consumption among students because, according to Savage, Fisher, and Birch (2021), parents have a significant influence on their children's eating habits. Thus, according to Boylan et al. (2017), parents frequently reward their children's good behavior with sweet meals, which can lead to over consumption and increasing unhealthy foods intake, which, is stated by (Safi et al. (2020) can cause depression in the long-term. According to research, higher levels of perceived parental control have been linked to overeating and obesity, but the findings show that teenagers who reported stricter parental control had less intention to eat junk food and consumed less of it (Karimi-Shahanjarini, Rashidian, Majdzadeh, Omidvar, Tabatabai, and Shojaeezadeh, 2012). Hence, similar to previous research that revealed parenting styles had a direct impact on children's eating habits and weight (Karimi-Shahanjarini et al., 2012). To overcome this problem, a traditional Mediterranean diet is significantly less likely to cause depression because fish, fruit, nuts, and vegetables help against mental health disorders.

Thirdly, there is also a gap between friends' influence and junk food consumption among the youth. Students are more likely to keep junk food with low consumption habits when they are with friends who eat less junk food, whereas students with a high intake of junk food are more likely to copy the consumption habit (De la Haye, Robins, Mohr, & Wilson, 2013). It shows that adults and youth imitate their peers' eating habits. Treats, junk food, and sugary drinks were the most frequent foods linked with friends (Guidetti, Cavazza, & Graziani, 2014). Hence, a study by Dunn, Mohr, Wilson, and Wittert (2011) reported that junk food consumption has mostly been influenced by ease, satisfaction, the presence of family and friends, and lifestyle. Furthermore, a junk food diet is a key cause of heart disease (Bhaskar, 2012). Previous background research showed that poor diets and eating patterns have resulted in various diseases that are related to health (Zahra et al., 2014). Several researchers declare that the chemicals such as monosodium glutamate, or MSG, flavor, color additives, and preservatives found in an excessive amount of junk food can lead to obesity, cancer, and neurologic disorders (Bhaskar, 2012). Promoting healthy alternatives and including grains and vegetables in the diet would be a better option to reduce the negative effects of junk food intake.

2   Literature Review

2.1   Food Trends

The increase in smartphone users has led to a rise in social media users. Indeed, social media is one of the platforms used to disseminate information. In a study by Sogari, et. al. (2018), a group of 35 students at Cornell University stated that they expressed dismay about the influence of television and other forms of mass media on how adolescents or young adults should appear because television advertisements for

candies and other sweet foods are negative communication about what to eat. Young generations, especially youth and young adults who use social media platforms such as Instagram, TikTok, Twitter, and Facebook, are more likely to follow new trends or something that has gone viral, whether on foods, fashions, or lifestyles. Dunford, Popkin, and Ng (2020) revealed that 88% of Children's Food and Beverage Advertising Initiative member commercial companies viewed by children on television featured goods high in saturated fat, sugar, and sodium. In the United States, poor food quality affects 32% of adults and 49% of children, with nutritional inequities persisting or growing among ethnic minorities and those with lower education and income (Liu, Lee, Micha, Li, & Mozaffarian, 2021). Many studies have been conducted to investigate what factors influence students to consume junk food such as fast food, instant noodles, snacks, and more. One of the factors is food trends. Food trends are prevalent changes in consumer preferences, and some of these trends last for a long period of time.

Additionally, for the past few years, mukbang has had an impact on Malaysians. A mukbang, or eating broadcast, is a live streamed audiovisual where someone eats large amounts of food alone or with someone (Kang, Lee, Kim, & Yun, 2020) while communicating with the viewers (Kircaburun, Savci, Emirtekin, & Griffiths, 2022). The word mukbang is a combination of the Korean terms "eating" (meokneun) and "broadcast" (bangsong) (Kang et al., 2020). It first gained popularity in South Korea in the late 2000s and has become a huge global trend recently. The primary factor in the appearance of mukbang is the loneliness of the host and the viewers. This is due to Korea's culture of eating together. But as the number of single-person households increases and the generational landscape changes in Korea, fewer people are eating with their families. In today's modern world, watching and communicating online through the broadcasting of mukbang is an alternate option to satisfy the desire for communal eating. Mukbang is the new eating companion for many young Koreans (Kang, et. al., 2020). Second, mukbang viewers experience vicarious delight, comparable to "food porn" or "eating shows." Mukbang makers purposefully eat loudly or arrange the food close to the viewing audience to maximize audience satisfaction. Mukbang viewers believe that their hunger is satiated vicariously through this visual and audible stimulation (Kang, et. al., 2020).

As mukbang videos become more widely available, there is a growing interest in the impact of mukbang on people's eating habits and obesity. Previous studies have shown that media-transmitted food shows promote and stimulate overeating, and it is well known that these food-related media particularly affect children. Influencers' food consumption, such as that of mukbang makers, is known to influence viewers' food consumption. The types of meals and eating habits depicted in these media may play a significant role in determining the influence of Mukbang. However, there is insufficient research on the substance of the actual Mukbang movies from a public health standpoint.

Typical mukbang broadcasts show people consuming a large amount of food from multiple plates. Mukbang producers not only performatively overeat, but they also eat irritating meals or try new items while streaming on the internet. Previous research has

looked at the impacts of exposure to food broadcasts, and because mukbang is becoming more famous around the world, evaluating the content of mukbang videos will be required to predict its popularity. In addition, there is a paucity of research on how news media coverage of mukbang affects public perceptions.

Most of the food that they eat is packed with calories. Thus, this trend has contributed to various diseases. Past studies have found that the main factors for eating a high proportion of junk food are flavorful taste, low cost, self- indulgence, and celebrity and sportsman advertising (Singh, Gautam, Bhandari, & Sapkota, 2020). However, these food trends have had negative effects. In 2018, news from World of Buzz reported that 18-year-old students in Taiwan died from stomach cancer after eating instant noodles every night. In addition, obesity, diabetes mellitus, hypertension, and coronary heart disease may be more common because of such a high intake of junk food. Thus, another research done in Nepal's Kaski area found that 3.3% of teenagers are obese due to unusual sleeping patterns, cigarette and substance addiction, prolonged television viewing, consumption of low-nutritional meals and fruits, and inadequate physical activity (Bohara, Thapa, Bhatt, Dhami, & Wagle, 2021).

2.2 Parental Control

Several crucial elements play a role in influencing children's eating behavior. Food preferences and eating habits are influenced by social factors and parents tend to be the most influential in instilling consumer behavior in their children through direct conversation (Kelly et al., 2006). It is because parental child feeding methods have an impact on children's food preferences and consumption patterns (Thomson et al., 2020). Children learn what to eat, when to consume it, and how much to eat during these early years (Savage et al., 2007). The first five years of life are a phase of tremendous physical growth and change, and dietary habits that might form the basis for future eating habits emerge during this time (Savage et al., 2007). In contrast, child's eating habits are developing in non-Third World nations amid unprecedented conditions of nutritional abundance when delicious, affordable, ready-to-eat meals are easily available.

Other studies have addressed the involvement of elements such as family and friends in acquiring nutrition information and taking action to engage in dietary behavior (Mirhadyan et al., 2020). It is because family is the initial creator of a children's character, intellectual values, and standards. According to Savage et al. (2007), families spend less time eating meals together. As a result, shows that only 55% of married parents and 47% of single parents have breakfast with their primary school children daily. Sogari et al. (2018), stated that parents were too preoccupied to pay attention to their children's diet, and if their parents did not influence and educate them about healthy eating, it was difficult for children and teenagers to learn about it. These teenagers thought that parents should provide a positive example for their children (Sogari et al., 2018). Because children consider their parents to be informed and monitor their consumer behavior, parents have the potential to deliver educational persuasion (Kelly et al., 2006). Psychologists agree that parents have a considerable influence on

their children's beliefs and conduct. So, parental control refers to whether a certain meal is available at home. Moreover, six out of ten studies that examined the impact of food as a reward on unhealthy eating showed a positive correlation (Yee et al., 2017).

2.3 Friends Influence

In late childhood and preadolescence, peers become increasingly essential because adolescents' decision-making can be influenced by their affinity for peer groups and close buddies (Ragelienė & Grønhøj, 2020). Young adults are frequently affected by their peers in a variety of ways, including eating habits. Sogari et al. (2018), declared that meals with friends were almost unhealthy because youngsters tend to eat fast food such as McDonald's, Four Fingers, Subway, and K-Fry when they hang out with their friends. Moreover, youngsters also tend to accept and try new food trends with their friends such as the spicy Korean noodle challenge, ghost pepper potato chips, and consume a large amount of food.

Studies by Salvy et al. (2011), mentioned that in the company of friends, unhealthy snack consumption was higher than in the presence of parents. Fortin & Yazbeck, (2015), mentioned that junk foods provided more than 70% of calories and 90% of total sugar consumed, showing that teenage and adolescent intakes remained dangerously high. Thus, peer influence is particular to junk food views and consumption, while parental influence is specific to healthy food attitudes and consumption (Guidetti et al., 2014) because teenagers usually consume healthy food like fruits and vegetables when they are with their family and eat a snack when they are with their friends (Sogari et al., 2018).

3 Methodology

3.1 Research Design

This research is to analyze the factors that influence youth intake and junk food consumption among students at UiTM Permatang Pauh by using the Theory of Planned Behaviour (Ajzen, 2015). Purposive sampling is the sampling technique that will be adopted for the study. This targeted sampling will include a significant number of 5700 students at UiTM Permatang Pauh who have experience consuming junk food.

3.2 Research Sampling and Design

The Student Affairs Department, UiTM Permatang Pauh stated that the overall 2021 student population is estimated to be around 5700 students. Students aged 18 to 24 years old will be chosen for this study. Even though the actual population size is known, not all participants will be considered respondents. To calculate the sample size, Krejcie & Morgan's sample size calculation has been used (Bukhari, 2021). The minimum sample size for this study is 357 students. Thus, purposive sampling will be applied.

3.3 Research Instrumentation

The questionnaire is a written question set in which the respondent sets down their

response using moderately specified options (Sekaran, 2003). Its purpose is to assess the area of concern that the objective, framework, and research question address. In this study, a self-administered questionnaire will be utilized, and it will be designed in the form of a 5-point Likert scale. The self-administered questionnaire was adapted from Mandoura et al. (2017) and Karimi-Shahanjarini et al (2012).

4   Findings

4.1   Introduction

The study discusses the pilot test results before moving on to the real data analysis. The subsection in this chapter contained and analyzed descriptive findings and hypothesis tests. Reliability analysis was performed to test for internal reliability. Multiple regression was used to analyze the completed survey data from respondents. At the end of this chapter, the output results were argued together with a summary of the hypothesis conducted.

4.1.1   Reliability Test and Normality

Table 1: Cronbach's Alpha

Variables	Cronbach 's Alpha	No. of Items	Number of Cases
Food Trends	0.713	4	30
Parental Control	0.784	3	30
Friends' Influence	0.803	5	30

Note: N=30

Cronbach's alpha was used to estimate internal consistency for reliability. The result in Table 1 indicated that all measured variables of the pre-test exceeded 0.7, ranging from 0.713 to 0.803, indicating that the range is from very good to excellent results. In this research, the central limit theorem is adopted for the normality test because mean and variance are the only variables that need to be evaluated. According to this theory, if data is drawn independently from any distribution and the sample size is large enough, the sample mean will always seem to be commonly distributed. Hence, all data is considered similar and issued several times.

4.1.2 Descriptive Analysis of Respondents

Table 2: Respondent's demographic profile

Profile	Categories	Frequencies	Percentage
Gender	Male	110	30.1%
	Female	255	69.9%
Age	18	14	3.8%
	19	5	1.4%
	20	59	16.2%
	21	37	10.1%
	22	74	20.3%
	23	149	40.8%
	24	27	7.4%
Education	Diploma	126	34.5%
	Degree	239	65.5%
Marital Status	Single	347	95.1%
	Married	18	4.9%
Race	Malay	327	89.6%
	Native	38	10.4%
Religion	Muslim	332	91.0%
	Christian	25	6.8%
	Buddhist	8	2.2%
Living Arrangements	Living alone	37	10.1%
	Living with family	291	79.7%
	Living with friends	37	10.1%

Table 2 with 30.1 percent males (n=110) and 69.9 percent females (n=255), shows a total of 365 respondents were involved in this study. The result also showed that 3.8 percent (n=14) of the total age of respondents was 18 years old, while the others were 19 years old with 1.4 percent (n=5), 20 years old with 16.2 percent (n=59), 21 years old with 10.1 percent (37), 22 years old with 20.3 percent (n=74), 23 years old with 40.8 percent (n=149) and 24 years old with 7.4 percent (n=27). From the results, it was found that 34.5 percent (n=126) of the diploma students and 65.5 percent (239) of the degree students. Secondly, 95.1 percent (n=347) were single and 4.9 percent (n=18) were married. For race, 89.6 per cent (n=327) were Malay and 10.4 per cent (n=38) were Native. Thus, the result showed that Muslims hold 91.0 percent (n=332) while 6.8 percent (n=25) were Christian and 2.2 percent (n=8) were Buddhist. Furthermore, more than half of the respondents lived with the family, at 79.7 percent (n=291), while living alone and living with friends were the same at 10.1 percent (n=37).

4.1.3   Multiple Correlation Analysis

The multiple regression analysis was performed with all the assumptions complied with. The results of the multiple regression are presented in Table 3 above and Table 4.

Table 3: Multiple correlations of independent variables with dependent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistic				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.526ª	.277	.271	.469	.277	46.097	3	361	.000

a. Predictors: (Constant), Food Trends, Parental Control, Friends' Influence
b. All requested variables entered

There are multiple correlations (R=0.526) of three significant predictors with the criterion (dependent variable), as demonstrated in Table 3. According to the model, the factors that influence youth intake on junk food are food trends, parental control, and friends' influence. These factors have a significant effect size, which explains 28 percent of the variability in junk food consumption. Furthermore, the adjusted R^2 shows that in the population, the three factors account for that 27 percent of the variance, contributing to higher junk food consumption.

4.1.4   Significance of Independent variables

Table 4: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	30.365	3	10.122	46.097	.000^b
Residual	79.265	361	.220		
Total	109.633	364			

a.   Dependent Variable: Junk food consumption

b.   Predictors: (Constant), Food Trends, Parental Control, Friends' Influence

Only 25% of the variance of the criterion is unaccounted for. Table 4 reveals that this regression is significant ($F_{3,361}= 46.097$, $p<.01$)

4.1.5   Regression coefficients and significance of the independent variables

Table 5: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.311	.132		2.364	.019		
Food Trends (IV1)	.175	.036	.275	4.895	.000	.634	1.577
Parental Control (IV2)	.016	.034	.023	.464	.643	.794	1.260
Friends' Influence (IV3)	.187	.034	.307	5.546	.000	.653	1.531

a.   Dependent Variable: Junk Food Consumption

Three significant predictors of independent variables are positively related to the criterion in the regression, as shown in Table 5. The influence of friends has the highest regression coefficient (0.187), then food trends (0.175), and parental control. Effects from other predictors are insignificant in this set of combinations, and those factors are not included in the multiple regression equation. The multiple regression equation is as follows:

DV = 0.311 + 0.175 IV1 + 0.016 IV2 + 0.187 IV3

Table 6: Summarizes Results for Hypotheses

Code	Hypotheses	Result
H1	There is a positive relationship between food trends and junk food consumption behavior.	Supported
H2	There is a positive relationship between parental control and junk food consumption behavior.	Supported
H3	There is a positive relationship between friends' influence and junk food consumption behavior.	Supported

5 Discussion

5.1 Food Trends

The first hypothesis had been tested, which is the relationship between food trends and junk food consumption behavior. The outcome shows that there is a significant relationship between food trends and junk food consumption behavior which is related to the research objective and answers the research question. There is a reliable and identical way in which the food trends are described in the literature review part. Based on the literature review, it proves that there is a sign with the junk food consumption behavior.

Food trends are prevalent changes in consumer preferences, and some of these trends last for a long period of time. Thus, for the past few years, Malaysians have been influenced by food mukbang, which has become a huge global trend recently. The latest food trend in Malaysia is the spicy Korean noodle challenge. Most of the food that they eat is packed with calories. Thus, this trend has contributed to various food trends. The result of Cronbach's alpha shows the range is 0.713, which is strongly based on the rules of thumb from Evans, (1996). This shows that food trends influence the youth's intake on junk food.

5.2 Parental Control

The second hypothesis has been tested, which is the relationship between parental control and junk food consumption behavior. The outcome shows that there is a significant relationship between parental control and junk food consumption behavior which is related to the research objective and answers the research question. Based on the literature review, it proves that there is a sign of junk food consumption behavior.

Sogari et al., (2018), stated that parents were too preoccupied to pay attention to their children's diet, and if their parents did not influence and educate them about healthy eating, it was difficult for children and teenagers to learn about it. The SPSS analysis agrees that parents have a considerable influence on their children's beliefs and conduct. This shows that parental control influences the youth's intake of junk food.

5.3 Friends' Influence

The third hypothesis had been tested, which is the relationship between friends' influence and junk food consumption behavior. The outcome shows that there is a significant relationship between friends' influence and junk food consumption behavior which is related to the research objective and answers the research question. Based on the literature review, it proves that there is a sign with the junk food consumption behavior.

Young adults are frequently affected by their peers in a variety of ways, including eating habits. Peers frequently have an impact on young adults in a variety of ways, including eating habits. Sogari et al., (2018), declared that meals with pals were almost unhealthy because youngsters tend to eat fast food and tend to accept and try new food trends with their friends. Studies by Salvy et al., (2011), mentioned that in the company of friends, unhealthy snack consumption was higher than in the presence of parents. This shows that friends influence the youth's intake of junk food consumption.

Overall, multiple regression techniques were used to examine the statistical relationship between the independent variables and the dependent variable. The "adjusted R square" value of the model was 0.271, showing that 27.1% of the variance in junk food consumption was explained by the independent variables, i.e., food trends, parental control, and friends' influence. The other variances were explained by other variables not included in the current study. The beta value of friends' influence (0.307) suggested that this variable makes the strongest unique contribution to explain the overall factors that influence junk food consumption when other variables in the model are controlled for. This was followed by the beta value of food trends (0.275), which is slightly lower compared to friends' influence. Therefore, it can be concluded that food trends, parental control, and friends' influence have a significant effect on overall junk food consumption.

6   Conclusion

According to the findings of the overall research, the three independent variables, which are food trends, parental control, and friends' influence, were substantially connected to junk food consumption behavior. This is an issue that must be addressed to ensure that students can control and minimize their unhealthy eating habits. Thus, eating junk food for a long period of time can cause health problems such as heart disease, obesity, cancer, diabetes, and more. The results of this study will particularly assist the students in UiTM Permatang Pauh with useful information on an important factor that will help them to control their junk food intake. As a result, it will also suggest ideas for future enhancement.

7 About the Author

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8 References

Abdulameer, S. S., Yaacob, N. A., & Ibrahim, Y. M. (2020). Measuring Leagile Supply Chain, Information Sharing, and Supply Chain Performance: Pre-Test and Pilot Test. *International Journal of Technology*, *11*(4). https://doi.org/10.14716/ijtech.v11i4.3496

Ajzen, I. (2015). Consumer attitudes and behavior: the theory of planned behavior applied to food consumption decisions. *Italian Review of Agricultural Economics*, *70*(2), 121–138. https://doi.org/10.13128/REA-18003

Bhaskar, R. (2012). Junk Food: Impact on Health. *Journal of Drug Delivery and Therapeutics*, *2*(3). https://doi.org/10.22270/jddt.v2i3.132

Bohara, S. S., Thapa, K., Bhatt, L. D., Dhami, S. S., & Wagle, S. (2021). Determinants of Junk Food Consumption Among Adolescents in Pokhara Valley, Nepal. *Frontiers in Nutrition*, *8*(April), 1–9. https://doi.org/10.3389/fnut.2021.644650

Boylan, S., Hardy, L. L., Drayton, B. A., Grunseit, A., & Mihrshahi, S. (2017). Assessing junk food consumption among Australian children: trends and associated characteristics from a cross-sectional study. *BMC Public Health*, *17*(1), 1–35. https://doi.org/10.1186/s12889-017-4207-x

Bukhari, S. A. R. (2021). Sample Size Determination Using Krejcie and Morgan Table. *Kenya Projects Organization (KENPRO)*, *February*, 607–610. https://doi.org/10.13140/RG.2.2.11445.19687

Dasanayaka, P., & Priyanath, H. (2022). Impact of Fast-Food Consumption on Overweight Among Young Adults in Sri Lanka. *International Journal of Education, Teaching and Social Science*, 10-21.

De la Haye, K., Robins, G., Mohr, P., & Wilson, C. (2013). Adolescents' intake of junk food: Processes and mechanisms driving consumption similarities among friends. *Journal of Research on Adolescence*, *23*(3), 524–536. https://doi.org/10.1111/jora.12045

Dunford, E. K., Popkin, B. M., & Ng, S. W. (2020). Recent Trends in Junk Food Intake in U.S. Children and Adolescents, 2003–2016. *American Journal of Preventive Medicine*, *59*(1), 49–58. https://doi.org/10.1016/j.amepre.2020.01.023

Dunn, K. I., Mohr, P., Wilson, C. J., & Wittert, G. A. (2011). Determinants of fast-food consumption. An application of the Theory of Planned Behaviour. *Appetite*, *57*(2), 349– 357. https://doi.org/10.1016/j.appet.2011.06.004

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Fortin, B., & Yazbeck, M. (2015). Peer effects, fast food consumption and adolescent weight gain. *Journal of Health Economics*, *42*, 125–138. https://doi.org/10.1016/j.jhealeco.2015.03.005

French, S. A., Tangney, C. C., Crane, M. M., Wang, Y., & Appelhans, B. M. (2019). Nutrition quality of food purchases varies by household income: The SHoPPER study. *BMC Public Health*, *19*(1), 1–7. https://doi.org/10.1186/s12889-019-6546-2

Guidetti, M., Cavazza, N., & Graziani, A. R. (2014). Healthy at home, unhealthy outside: Food groups associated with family and friends and the potential impact on attitude and consumption. *Journal of Social and Clinical Psychology*, *33*(4), 343–364. https://doi.org/10.1521/jscp.2014.33.4.343

Hirschmann, R. (2021). *Demand for instant noodles in Malaysia 2013-2020 Demand for instant noodles in Malaysia from 2013 to 2020*. 2020–2021.

Kang, E. K., Lee, J., Kim, K. H., & Yun, Y. H. (2020). The popularity of eating broadcast: Content analysis of "mukbang" YouTube videos, media coverage, and the health impact of "mukbang" on public. *Health Informatics Journal*, 2238.

Karimi-Shahanjarini, A., Rashidian, A., Majdzadeh, R., Omidvar, N., Tabatabai, M. G., & Shojaeezadeh, D. (2012). Parental Control and Junk-Food Consumption: A Mediating and Moderating Effect Analysis. *Journal of Applied Social Psychology*, *42*(5), 1241–1265. https://doi.org/10.1111/j.1559-1816.2011.00885.x

Kelly, J., Turner, J. J., & McKenna, K. (2006). What parents think: Children and healthy eating. *British Food Journal*, *108*(5), 413–423. https://doi.org/10.1108/00070700610661376

Kircaburun, K., Savci, M., Emirtekin, E., & Griffiths, M. D. (2022). Uses and gratifications of problematic mukbang watching – The role of eating and social gratification: A pilot study. *Journal of Psychiatric Research*, 28.

Levasseur, P. (2021). Do junk food bans in school really reduce childhood overweight? Evidence from Brazil. *Food Policy,* 1-12.

Liu, J., Lee, Y., Micha, R., Li, Y., & Mozaffarian, D. (2021). Trends in junk food consumption among US children and adults, 2001–2018. *The American Journal of Clinical Nutrition*, 2001–2018. https://doi.org/10.1093/ajcn/nqab129

Ministry of Health Malaysia. (2023). Retrieved from Health Online Unit, Ministry of Health Malaysia: http://www.myhealth.gov.my/en/childhood-obesity

Mandoura, N., Al-Raddadi, R., Abdulrashid, O., Shah, H. B. U., Kassar, S. M., Adel Hawari, A. R., & Jahhaf, J. M. (2017). Factors Associated with Consuming Junk Food among Saudi Adults in Jeddah City. *Cureus*, *9*(12), 1–12. https://doi.org/10.7759/cureus.2008

Ministry of Health Malaysia. (2023). Retrieved from Health Online Unit, Ministry of Health Malaysia http://www.myhealth.gov.my/en/childhood-obesity

Mirhadyan, L., Moradi Latreyi, S., Pasha, A., & Kazem Nejad Leili, E. (2020). Junk Food Consumption and its Associated Factors in High School Students in Rasht in 2017. *Journal of Research Development in Nursing and Midwifery*, *17*(1), 52–66. https://doi.org/10.29252/jgbfnm.17.1.52

Myat, M. (2021). *Business Research Method - Zikmund 8th edition. pdf THE ROLE OF BUSINESS*. *2021*, 1–465.

Mohd Sidik, S., & Ahmad, R. (2004). Childhood Obesity: contributing factors, consequences and intervention. *Malaysian Journal of Nutrition*.

Rajveer, B., & Monika, O. (2012). Junk Food: Impact on Health. *Journal of Drug Delivery & Therapeutics*, 67-73.

Ragelienė, T., & Grønhøj, A. (2020). The influence of peers' and siblings' on children's and adolescents' healthy eating behavior. A systematic literature review. *Appetite*, *148*(November 2019). https://doi.org/10.1016/j.appet.2020.104592

Rathi, N., Riddell, L., & Worsley, A. (2016). What influences urban Indian secondary school students' food consumption? – A qualitative study. *Appetite*, *105*, 790–797. https://doi.org/10.1016/j.appet.2016.07.018

Safi, at el., 2020. (2020). *It' s your choice! 2107*, 208529.

Salvy, S. J., Elmo, A., Nitecki, L. A., Kluczynski, M. A., & Roemmich, J. N. (2011). Influence of parents and friends on children's and adolescents' food intake and food selection. *American Journal of Clinical Nutrition*, *93*(1), 87–92. https://doi.org/10.3945/ajcn.110.002097

Saunders, M., Lewis, P., & Thornhill, A. (2009). *for Business Students Fifth Edition*. *2021*, 649.

Savage, J. S., Fisher, J. O., & Birch, L. L. (2007). Parental influence on eating behavior: Conception to adolescence. *Journal of Law, Medicine and Ethics*, *35*(1), 22–34. https://doi.org/10.1111/j.1748-720X.2007.00111.x

Sekaran, U. (2003). Research and Markets: Research Methods for Business - A Skill Building Approach. In *John Wiley & Sons*. https://doi.org/http://dx.doi.org/10.1108/17506200710779521

Shimul, A. S., Cheah, I., & Lou, A. J. (2021). Regulatory focus and junk food avoidance: The influence of health consciousness, perceived risk and message framing. *Appetite*, *166*(May), 105428. https://doi.org/10.1016/j.appet.2021.105428

Singh, U. K., Gautam, N., Bhandari, T. R., & Sapkota, N. (2020). Educational Intervention of Intention Change for Consumption of Junk Food among School Adolescents in Birgunj Metropolitan City, Nepal, Based on Theory of Planned Behaviors. *Journal of Nutrition and Metabolism*, *2020*. https://doi.org/10.1155/2020/7932324

Sogari, G., Velez-Argumedo, C., Gómez, M. I., & Mora, C. (2018). College students and eating habits: A study using an ecological model for healthy behavior. *Nutrients*, *10*(12), 1–16. https://doi.org/10.3390/nu10121823

The Statistic Portal. (2016). Malaysia: How often do you eat fast food (any quick service restaurant) in any given week (on average). *Stastita*, *212*, 2016–2017. https://www.statista.com/statistics/561279/malaysia-average-fast-food-consumption-per-week/

Thomson, J. L., Hennessy, E., Landry, A. S., & Goodman, M. H. (2020). Patterns of food parenting practices regarding junk food and sugary drinks among parent-child dyads. *Nutrition Journal*, *19*(1), 1–11. https://doi.org/10.1186/s12937-020-00610-3

United Nation. (2023). *Youth*. Retrieved from United Nation: https://www.un.org/en/global-issues/youth

Vijaindren, A. (2019, August 18). *Ban junk food ads, govt urged*. Retrieved from New Straits Times: https://api.nst.com.my/news/nation/2019/08/513741/ban-junk-food-ads-govt-urged

Ward, H. (2020). Preferred type of food ordered on delivery apps among respondents in Malaysia as of June 2020. *Statista Inc.*, *June 2020*, 2020–2021. https://www.statista.com/statistics/1143377/malaysia-type-of-food-that-is-ordered-on-delivery-apps/

World Health Organization. (2021). Retrieved from World Health Organization: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight

Yee, A. Z. H., Lwin, M. O., & Ho, S. S. (2017). The influence of parental practices on child promotive and preventive food consumption behaviors: A systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, *14*(1), 1–14. https://doi.org/10.1186/s12966-017-0501-3

Yunus, A., & Mohamed Radhi, N. (2019, December 28). *Unhealthy diet, lack of exercise cause early death*. Retrieved from The New Straits Times: https://www.nst.com.my/news/nation/2019/12/551478/unhealthy-diet-lack-exercise-cause-early-death

Zahra, J., Ford, T., & Jodrell, D. (2014). Cross-sectional survey of daily junk food consumption, irregular eating, mental and physical health and parenting style of British secondary school children. *Child: Care, Health and Development*, *40*(4), 481–491. https://doi.org/10.1111/cch.1206