

Factors Influencing the Fast-food Consumption Frequency among Undergraduates of Faculty of Agriculture, Eastern University of Sri Lanka

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Abstract

Fast food has been revolutionized by modernization and globalization, and Sri Lankans, particularly young people with busy schedules, embrace it for its convenience. This could reduce their nutritional status and increase their risk of diet-related noncommunicable diseases. This study aims to relate the factors that influence the frequency of fast-food consumption among undergraduates of the Faculty of Agriculture, Eastern University, Sri Lanka (EUSL). A structured questionnaire was used to gather primary data from 100 randomly chosen students in five batches at the EUSL Faculty of Agriculture. The collected data were analyzed using the SPSS software package. Descriptive statistics were used to explain the study variables, and a chi-square analysis was done to find out the factors influencing fast-food consumption frequency. The results revealed that more than half of the students (82%) were female from various districts of Sri Lanka. When it came to choosing fast food items, the majority of students gave preference to taste. However, when it came to the diversity of the menu, they gave preference to taste when they consumed fast food on a weekly basis. Almost half of the students consume fast food 1-2 times per week. Additionally, the menu's variety and the time allotted for preparation, tasting, and dining with loved ones affected how frequently they consumed fast food each week. The study reveals that most students prefer fast food for snacks, which could be beneficial for undergraduate health care and promote healthier dietary choices.

Keywords: *Fast food, Food choice, Health impacts, Nutritional status*

I. INTRODUCTION

The fast-food industry has grown dramatically throughout the world (Jia et al., 2021; Lim et al., 2018; Mertens et al., 2022). Fast food is linked with restaurant chains that provide a bound menu

of standard choices such as pizza, hamburgers, sandwiches, chips, sodas, and other related foods that are made quickly and intended to be consumed immediately (Mazidi and Speakman, 2017; Thornton et al., 2009). These dishes are distinguished by their quick availability, simple preparation method, and emphasis on efficiency, allowing customers to receive their cuisine in minutes of placing an order (Fulkerson, 2018).

Fast food consumption has become a public health concern due to its association with a poor diet. (Jia et al., 2021). It ended up with the risk of certain chronic diseases such as diabetes, cardiovascular diseases (Elizabeth et al., 2020; Jardim et al., 2021), and obesity (Elizabeth et al., 2020; Jardim et al., 2021; Ipparraguirre et al., 2021).

Fast food consumption has grown significantly among higher education students. These amounts may vary from around three times per month. (Didarloo et al., 2022) to two or more times a week (Shaban and Alkazeme, 2021; Mwafi et al., 2021). Varied factors have shown significant impacts on continual fast-food consumption, including attributes like higher socioeconomic status, gender, age group (Didarloo et al., 2022; Saha et al., 2022), and high-rise body mass index (Hojjati et al., 2023). Further, factors like price, brand reputation, taste, accessibility, favourable location, Promotional incentives and rapid service play an important influence in increasing fast-food consumption among higher education students. (Saha et al., 2022). Undergraduates are an especially vulnerable group, as they are in a period of life marked by various changes, which include spending prolonged periods away from home and residing at university campuses. This change considerably influences eating habits, frequently resulting in unlikely weight gain (Shatwan et al., 2022). This may have significant consequences in the future, as weight increase during the young adulthood stage is identified as a significant risk factor for the development of obesity in the later periods of adulthood (Sparke et al., 2021). Because it is regarded as the young generation, its well-being is important to the country's future

economy. Due to their busy lifestyles and limited time for meal preparation, university students are frequently seen as a huge customer base for fast food. People in the adolescent and teenage years are the most regular consumers of fast food. (Lee, 2007). There is a lot of well-researched evidence that consuming fast food daily can be harmful to one's health. This is due to the elevated sugar, salt, saturated fat, trans fats, processed components, and calories in fast foods. It is also deficient in antioxidants, fibre, and a variety of other nutrients (Jerlyn Jones, 2023). University students who spend most of their time out of home usually consider factors like accessibility, comfort, and eating preference when determining how to meet their energy and dietary needs. This may lead to an unbalance in their dietary habits and increase their chance of getting diet-related non-communicable diseases (NCDs).

Few studies have been conducted on Sri Lankan undergraduates' fast-food consumption patterns. (Jayawickrama et al., 2020). Public knowledge of youngsters' fast-food eating is relatively low, and there are very few resources and studies accessible on the subject, particularly on undergraduates' food consumption patterns (Arya and Dubey, 2023). As a result, an empirical gap in fast-food consumption patterns and factors influencing the choice of fast-food among university students has been established. Based on this background, a study was conducted among undergraduates of the Faculty of Agriculture, Eastern University, Sri Lanka, to determine the factors influencing their fast-food intake. By having a better understanding of these variables, more efficient strategies for encouraging people to choose environmentally

friendly and healthier food choices can be developed.

II. METHODOLOGY

This study further attempted to identify the most preferred fast foods and their consumption patterns; ten fast food items were listed among the respondents, and preference level was asked. The ten fast-food items included were burger, pizza, cakes, short eats, biscuits, juices, energy drinks, fried chicken, kothu, and ice cream.

A. Location of study

The research was conducted among the students in the Faculty of Agriculture at the Eastern University, Sri Lanka. The study looked at the Agriculture faculty students of Eastern University, Sri Lanka. The study's sample size was limited to 100 students from the Faculty of Agriculture at Eastern University in Sri Lanka.

B. Sample selection

Undergraduates from the Faculty of Agriculture at Eastern University of Sri Lanka were the intended audience. There were five batches of students under the Faculty of Agriculture, EUSL, during the study period, and the total number of students was 318. The survey included 100 students randomly selected from the five batches. The number of students selected from each batch was proportional to the total number of students in that batch. For the study, students from each batch were picked by simple random sampling technique.

Table 01 gives the sample size of the study.

Table 01: Sample size of the study
(Source: Field Survey, 2023)

Batches	Total Students	Sample size
1 st year 1 st Semester	76	24
2 nd year 1 st Semester	69	22
2 nd year 2 nd Semester	73	23
3 rd year 2 nd Semester	54	17
4 th year 2 nd Semester	46	14
Total	318	100

C. Data collection

In this study, a questionnaire survey was the principal primary data collection method. A

structured questionnaire was used to measure the variables. The study also gathered secondary data from various sources, including textbooks, published sources, statistics handbooks, libraries, websites, and more. Additionally, data pertaining

to the current study were gathered from the literature through empirical proof, real-world instances, and other research findings.

D. Data Analysis

The data gathered were analyzed using the IBM SPSS Statistics software, version 23.0 (Statistical Package for the Social Sciences). In addition to the absolute (n) and relative (%) frequencies, the mean and standard deviation (SD) were calculated for the statistical description. The chi-square analysis was performed to test the association among different variables.

III. RESULTS AND DISCUSSION

This study consisted of 100 participants, most of them were females (82%) and from 20 different districts of Sri Lanka. Most of the students, nearly 63 per cent, live in urban areas. About 95% of Students reported eating fast food one or two times a week, and they preferred and had become used to it. This indicates a moderate frequency of consumption. However, a more recent study conducted among students from higher education in Portugal found that students consumed fast food one to six times per week, with a high frequency of fast-food consumption (Oliveira and Raposo, 2024). Usually, fast-food items are taken as breakfast, lunch, snacks, dinner, or other periods. From the study, it was found that most of the students (more than 50%) preferred to take fast food as snacks. According to their consumption time, they prefer to grab fast food between 2 pm and 6 pm. More than half of the students (63%) preferred to consume both restaurant-made and home-made fast foods, followed by restaurant-based (20%) and home-made (12%).

A. Factors considered by the students during the selection of fast foods

The respondents were asked to rank the key factors considered when selecting fast food at a restaurant or home. The factors mentioned include healthy food, taste, calories, price, quantity, satisfaction, and variety. The responses are discussed below.

Taste: 80% of the students considered taste to be an important factor when purchasing fast food. A similar result was also observed by Pinnagoda (2017) and Kaushik et al. (2011), indicating that taste was the primary factor (50.3%) in consuming

fast food. Most of the respondents in this study considered fast food tastes when making their selections.

Healthy food: Around 78% of the students considered healthy food a key factor when selecting a fast-food, indicating awareness of food and health choices. A likely result was observed by Oliveira and Raposo (2024) in their study among higher education students in Portugal, where students considered healthy food during the selection of fast-food and were concerned about their body weight management.

Calories: Almost 66 per cent of respondents considered calories to be an essential priority when selecting fast food.

Price: The results show that 70% of respondents considered price an essential priority when selecting fast foods, indicating the students considered cost as a significant factor when deciding what to eat.

Quantity: The results show that 50 per cent of respondents considered quantity of food as an essential priority while selecting fast foods.

Satisfaction: According to the results, 68 per cent of respondents considered consuming fast food for satisfaction.

Variety of menu: According to the results, 49 per cent of respondents highly prioritized the variety of fast-food items while selecting fast foods. Similarly, Harris et al. (2010) discovered that a diverse menu encouraged restaurant visits for specific eating occasions.

Among the factors such as health, calories, taste, price, quantity, satisfaction, and variety, students were asked to rank their important priorities when selecting fast foods. Most students preferred to consider taste as their foremost priority, followed by healthy food, price, satisfaction, the calorie content of fast food, quantity, and variety of food. The lowest number of students preferred to consider the variety of fast-food items. Table 02 gives the mean and standard deviation of the priority factors.

Table 02 : Mean and standard deviation values of factors considered during the selection of fast-food

Factors	Mean	Std. Deviation
Taste	6.0698	1.42903
Health	4.7473	1.94132
Price	4.2706	1.73472
Satisfaction	3.9176	1.96524
Calories	3.4125	1.91393
Quantity	3.2785	1.45828
Variety	2.8077	1.77323

(Source: Field Survey, 2023)

B. Factors associated with fast-food

Consumption frequency per week

A chi-square test was carried out with the variables: Advertisement, good taste (liking & enjoying the taste), limited time for cooking, cost, variety of menu, and eating with friends or family to identify their association with fast-food consumption frequency. Here, fast food consumption frequency was studied under four

categories: 0 times, 1-2 times, 3-4 times, and 5 times or more per week. Table 03 gives the c Chi-square analysis between fast-food consumption per week and selected variables.

Table 03 : Chi-square analysis between fast-food consumption per week and selected variables

Factors	Chi-square Value [X^2]	<i>p-value</i>
Advertisement	17.849 ^a	0.466
Good taste	29.980 ^a	0.038*
Limited time for cooking	25.683 ^a	0.041*
Cost/price	19.123 ^a	0.384
Variety of menu	32.377 ^a	0.020*
Eating with friends or family	29.384 ^a	0.044*

Means with different letters represent significant differences at $p < 0.05$

This chi-square test between the variety of menus and fast-food

frequency per week shows that the corresponding p -value is less than 0.05 ($p = 0.020$; $X^2 = 32.377$). This implies that the two variables have an association between them. When testing the good taste, it was shown that two variables are associated ($p < 0.05$; $X^2 = 29.980$). This highlights the importance of palatability in food consumption. The same was observed for the association between limited time for cooking and fast-food consumption frequency per week ($p < 0.05$; $X^2 = 25.683$). University students are generally loaded with study-related activities and find very little time for cooking. This situation results in obtaining fast food from restaurants or preparing it at home. In addition, a significant association ($p < 0.05$; $X^2 = 29.384$) was also

observed between the frequency of fast-food consumption per week and eating with friends or family. Advertisements on fast foods were found not to be associated with the fast-food consumption frequency per week ($p > 0.05$; $X^2 = 17.849$). Similarly, the study results reveal that fast-food consumption frequency per week was not influenced ($p > 0.05$; $X^2 = 19.123$) by the cost/price of fast-food. Accordingly, advertisement and cost were not influenced fast food consumption frequency, and the variety of menu, limited time for cooking, taste factor, and eating with friends or family were found to be influenced by the fast-food consumption frequency per week.

IV. CONCLUSION

It is concluded from the study that most of the students in the Faculty of Agriculture, Eastern University, Sri Lanka, preferred to consume fast food. Among the fast foods, most students preferred to consume short foods like samosa, rolls, and pastries, and their least preference was energy drinks. While selecting fast food, most students considered the taste of fast-food items an important factor, and the least considered factor is the variety of fast-food items. The study further concluded that there is a significant association between the frequency of fast-food consumption per week and the menu variety, limited cooking time, good taste, and eating with friends or family. Accordingly, these factors influence the fast-food consumption pattern of the Faculty of Agriculture, Eastern University, Sri Lanka undergraduates. The findings of this study have significant consequences for college students and offer guidance for creating stronger approaches to promote healthy eating choices.

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