Fast Food Consumption Behaviour among College Students- A Case Study in Tinsukia

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Abstract
With advent of changing lifestyle, demand for fast food products is enhancing day by day. Especially among the student fraternity, the trend is immensely increasing. Keeping that point in view, the present study endeavors to find out the food preference towards the fast food products among college students. The dependent variable of the study is food preference whereas the study has five independent variables. The study has been conducted in Tinsukia town with 50 respondents. Regression analysis and chi square tests are conducted to test the hypotheses.

Introduction
"An adequate diet is one which meets in full all the nutritional needs of the person."- (Leonard A. Maynard, 1959). An adequate diet protects against many chronic non communicable diseases, such as heart disease, diabetes and cancer (WHO report, 2020) and is also considered as an important element for building physical fitness and mental health of an individual. "But there have been small decline in the purchase of less healthy food products, which translated to a small reduction of total energy and sugar purchases taken home". – (Nicholas Berger, et al., 2020). Recent studies conducted by different academicians and researchers consider that among all the stages of a person life, the stage of adolescent is considered as the stage of rapid growth of malnutrition. "Malnutrition in all its forms, including obesity, under nutrition, and other dietary risks, is the leading cause of poor health globally"- (Boyd A Swinburn, et al., 2019) With rapid growth of urbanization and advancement of modern up to date technology the ways of living of many people has greatly changed. The effects of the changing lifestyles of the individuals have altered their food habit.
Fast food generally refers to the food that is quickly prepared within a short interval. Consumption of fast food has drastically increased in India. People, specifically the adolescents love to eat fried and roasted food. It has been observed from many studies that people prefer fast food for convenience (Hesamedin Askari Majabadi, et al., 2016), taste (B. Narayan & M. Prabhu, 2015) and also for social interaction (M. S. Anitharaj, 2018) and also to attain pleasure. But in spite of huge demand of fast food from larger section of people of the society, but consumption of too much of fast food may result into cardiac disease or obesity. Strict supervision of fast food companies is required. (Hesamedin Askari Majabadi, et al., 2016).

Review of Literature

Previous literature on the relevant subject matters has been critically reviewed and attempt has been made to find out the gap that is prevalent in the concerned area of study.

| SI No. | Authors | Findings |
|--------|---------|----------|
| 1      | B. Narayan & M. Prabhu (2015) | “Taste, time, money cleanliness and hygiene are the factors which have influenced students for fast food. The study showed that consumption of fast food among male students in the university is more than female students. Findings also revealed that consumers often visit to fast food outlets not only for meal but for the social gatherings among friends, colleagues and classmates.” |
| 2      | I. N. Syafiqah, R. Normala et al., (2018) | “The consumption of fast food is comparatively more among female students than male students. Results of the study showed that consumers consume fast food as frequently as 1 to 5 times a week” |
| 3      | S. Abraham, M. Manuel et al.,(2018) | “Eating habits of individuals directly relates to persons health. To them students are aware of the risks associated with their habits of eating unhealthy foods but their habits of eating unhealthy food does not correlate with their knowledge on it. The study also mentioned that students should be made aware about the harmful effects of fast food consumption”. |
| 4      | M. S. Anitharaj (2018) | “People mainly go to fast food restaurants for get-together, parties and also to enjoy the taste of the food. It was observed that there is strong relationship between the prices of different fast food products and the number of visiting times of the consumers to the fast food outlets. The study also showed that for the fast growth of fast-food outlets consumer’s acceptances of food served by them are very much important”. |
| 5      | V. B. Dhape, V. Pari, S. Kumar et al., (2017) | “People consume fast food because of its delicious taste. They have put forwarded that 31.87% of their respondents were unaware of harmful effects of fast food consumption. The study has suggested to, conduct awareness campaign regarding the harmful effects of fast food consumption and usefulness of balanced diet”. |
| 6      | Y. Shami & F Fatima (2017) | “There is no correlation between perception of fast food being unhealthy and frequency of consumption of fast food among college girls. In their study they have mentioned that it is the responsibility of the government regulate the fast food market and limit the fast food from schools and colleges for better health of the younger generation.” |

The existing literature has enabled us to design the conceptual framework and the dependent and independent variables of the study are classified based on the factors identified in the existing literature.
Table 1: Conceptual Framework

| Variable       | Factors      | Source                                      | Hypotheses drawn keeping in view of dependent variable to independent variables |
|----------------|--------------|---------------------------------------------|--------------------------------------------------------------------------------|
| Independent    | Taste        | Anitharaj M. S. (2018)                      | \( H_5 \)                                                                         |
|                |              | Shami Y. & Fatima F., (2017)                |                                                                                |
|                | Convenience  | Khongrangjem T., et al., (2017)             | \( H_6 \)                                                                         |
|                | Advertisement| Shami Y. & Fatima F., (2017)                |                                                                                |
|                | Eating Habit | Hernandez, J. et al., (2016)               | \( H_7 \)                                                                         |
| Dependent      | Fast Food Consumption Behavior | Naheed V. (2013)                           |                                                                                |

(Source: Literature review)

It can be diagrammatically represented as:

![Diagram of Conceptual Framework]

Objectives
1. To find out the demographic profile of the college students.
2. To find the relationship between dependent variable (fast food preference behaviour) and independent variables (taste, convenience, advertisement and eating habit) of the study.

Hypotheses
- \( H_1 \): Food consumption behaviour and age of the college students are not associated.
- \( H_2 \): Food consumption behaviour and gender of the college students are not associated.
- \( H_3 \): Food consumption behaviour and educational qualification among the college students are not associated.
- \( H_4 \): Taste and food consumption behaviour among college students towards fast food are not related.
- \( H_5 \): Convenience and food consumption behaviour among college students towards fast food are not associated.
- \( H_6 \): Advertisement and food consumption
behaviour among college students towards
fast food are not associated.
• $H_3$: There is no association between eating habit and food consumption behaviour among college students towards fast food.

Methodology
Sampling Frame
The study is designed to know the fast food consumption behaviour of college students. A total of 120 questionnaires have been distributed to college students in the city. But out of that only 50 students have responded. A structured questionnaire having 22 statements in the five point likert scale has been used which ranges from strongly agree as 1 to strongly disagree as 5. Based in the literature, four independent variables and one dependent variable were found. So, statements in the questionnaire have been asked on points relevant to independent and dependent variables only. The study has been conducted in the time period between July-August, 2019.

Sampling Unit & Technique
Sampling unit for this study are the college students in Tinsukia who consume fast food. Convenient sampling technique has been adopted for this study.

Research Tools
SPSS 20 has been used in order to analyze the data. Certain tests like Reliability test, Chi Square Test and Regression Analysis has been done. Reliability test has been done to see the validity of the statements, whereas, Chi Square and Regression Analysis have been done to analyze the relationship among the variables.

Limitation
The study has only 50 respondents. Also, the study is confined to Tinsukia only. Henceforth, findings of the present study cannot be generalized.

Results
In relation of the first objective, Table 2 is prepared.

| Description                  | Participants (N=50) | Percentage |
|------------------------------|--------------------|------------|
| Age (year wise)              |                    |            |
| Less than 17                 | 15                 | 30%        |
| 17 – 20 years                | 22                 | 44%        |
| More than 20 years           | 13                 | 26%        |
| Gender                       |                    |            |
| Male                         | 13                 | 26%        |
| Female                       | 37                 | 74%        |
| Educational qualification    |                    |            |
| Above HSLC                   | 25                 | 50%        |
| Under graduate               | 25                 | 50%        |
| Pocket money/ Income         |                    |            |
| Less than Rs.2000            | 38                 | 76%        |
| Rs.2000 to Rs.4000           | 9                  | 18%        |
| More than Rs.4000            | 3                  | 6%         |

The table 2 indicates that most of the college students (44%) are from the age group 17-20 years. The table also depicts that most of the college students (74%) are female. 50% of the students are undergraduate while 50% have just passed matriculation and have enrolled into college. 76% of the college students have pocket money below Rs. 2000 per month while 18% have pocket money between Rs. 2000 and Rs 4000.

Reliability Analysis
According to Carmines and Zeller “Reliability concerns with the measurement of a phenomenon that provides consistent result”. “Cronbach Alpha coefficient is a frequently used internal consistency measure of reliability when likert scales have been used”. (Whitley, 2002, Robinson, 2009). “The reliability coefficient of 0.70 is adequate for research instruments.” (Whitley, 20002, Robinson, 2009)
The coefficient of alpha for 22 items is 0.927 which means that items have high internal consistency. So it clearly indicates that all the statements in the questionnaire are valid and have mutual relationship. Since statements are valid we can now focus on testing the hypotheses of the study as we can now expect the datasheet to give us authentic result.

Chi square test has been used to examine correlation among food consumption behaviour (dependent variable) and age (independent variable), gender (independent variable), pocket money (independent variable) and educational qualification per month (independent variable).

### Table 3: Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|---------------------------------------------|------------|
| .927             | .938                                        | 22         |

Chi square test has been used to examine correlation among food consumption behaviour (dependent variable) and age (independent variable), gender (independent variable), pocket money (independent variable) and educational qualification per month (independent variable).

### Table 4: showing the association between food consumption behaviour and age of the respondents

| Chi-Square Tests | Value   | df | Asymp. Sig. (2-sided) |
|------------------|---------|----|-----------------------|
| Pearson Chi-Square | 100.000a | 4  | .000                  |
| Likelihood Ratio  | 45.010  | 4  | .000                  |
| Linear-by-Linear Association | 49.000   | 1  | .000                  |

It is seen that the P-value i.e. 0.000< 0.05 which indicates that food consumption behaviour towards fast food is related to the age of respondents.

### Table 4: showing the association between food consumption behaviour and gender of the respondents

| Chi-Square Tests | Value   | df | Asymp. Sig. (2-sided) |
|------------------|---------|----|-----------------------|
| Pearson Chi-Square | 2.396a  | 2  | .302                  |
| Likelihood Ratio  | 3.893   | 2  | .143                  |
| Linear-by-Linear Association | 2.084    | 1  | .149                  |

It is seen that the P-value i.e. 0.302>0.05 which indicates that food consumption behaviour towards fast food is not related to the gender of respondents.
Table 5: showing the association between food consumption behaviour and pocket money of the respondents

| Chi-Square Tests | Value     | df  | Asymp. Sig. (2-sided) |
|------------------|-----------|-----|-----------------------|
| Pearson Chi-Square | 64.394a   | 4   | .000                  |
| Likelihood Ratio  | 33.553    | 4   | .000                  |
| Linear-by-Linear Association | 33.579 | 1   | .000                  |
| N of Valid Cases  | 50        |     |                       |

It is seen that the P-value i.e. 0.000< 0.05 which indicates that food consumption behaviour towards fast food is related to the pocket money of respondents.

Table 6: showing the association between food consumption behaviour and educational qualifications of the respondents

| Chi-Square Tests | Value     | df  | Asymp. Sig. (2-sided) |
|------------------|-----------|-----|-----------------------|
| Pearson Chi-Square | 6.818a    | 2   | .033                  |
| Likelihood Ratio  | 9.139     | 2   | .010                  |
| Linear-by-Linear Association | 5.933 | 1   | .015                  |
| N of Valid Cases  | 50        |     |                       |

It is seen that the P-value i.e. 0.033>0.05 which indicates that food consumption behaviour towards fast food is not related to the age of respondents.

Table 7 shows the descriptive scores of the mean and standard deviation of the four independent variables and one dependent variable.

Table 7: Descriptive Statistics

| Mean   | Std. Deviation | N  |
|--------|----------------|----|
| Fast food consumption behaviour | 1.1800 | .52255 | 50 |
| Convenience | 1.1800 | .52255 | 50 |
| Eating Habit | 1.1800 | .52255 | 50 |
| Advertisement | 1.5600 | .86094 | 50 |
| Taste | 1.1800 | .52255 | 50 |
Table 8: Model Summary

| Model | R       | R Square | Adjusted R Square | Std. Error of Estimate | R Square Change |
|-------|---------|----------|-------------------|------------------------|----------------|
| 1     | 1.000a  | 1.000    | 1.000             | .00000                 | 1.000          |

a. Predictors: (Constant), Taste, Advertisement

The value of present adjusted R² for the present regression model is 1.000 which indicates that 100% of food consumption behaviour can be explained by two variables i.e, taste and advertisement.

Table 9: ANOVA

| Model   | Sum of Squares | df  | Mean Square | F     | Sig. |
|---------|----------------|-----|-------------|-------|------|
| Regression | 13.380         | 2   | 6.690       |       | .    |
| Residual | .000           | 47  | .000        |       |      |
| Total    | 13.380         | 49  |             |       |      |

a. Dependent Variable: Fast food consumption behaviour
b. Predictors: (Constant), Taste, Advertisement

Table 10: Coefficients

| Model   | Unstandardized Coefficients | Standardized Coefficients | t    | Sig. |
|---------|-----------------------------|---------------------------|------|------|
|         | B                           | Std. Error                | Beta |      |
|       1 | (Constant)                  | .000                      | .000 | .    |
| Advertisement | .000                      | .000                      | .000 | .    |
| Taste   | 1.000                      | .000                      | 1.000 | .    |

a. Dependent Variable: Fast food consumption behaviour

Discussion
The results of the chi square on different demographic variables indicated that pocket money and age are related to fast food consumption behaviour. It shows that deviation in the pocket money may affect the fast food consumption. And it proved that one who has more pocket money is likely to consume more fast food. Similar to that, it also proved that age too play a significant role in the consumption behaviour of fast food products among college students. But contrary to that, it is found that college students take fast food products regardless of educational qualification and gender.

As it was found in the literature that there are four independent variables which actually have an effect on the dependent variable; but regression analysis results proved that only taste and advertisement have an effect on fast food consumption behaviour. Though, most of the literature advocated that eating habit and convenience affect the fast food consumption, but this study doesn’t find these factors as significant as taste and advertisement.
Conclusion
The trend of Fast food consumption among the masses has been increasing at an increasing rate in the recent years. Findings of the study shows that consumption behaviour of fast food does not depended on age or gender of the people rather it highly depends on its taste and pocket money of the consumer. Although consumption of fast food adversely affect human health in long run but it was observed that consumption of it has been rapidly increasing. Awareness programme and proper policy measures should be undertaken so that the consumption of the fast food can be minimized in the coming years.

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References

1. Anitharaj, M. S., (2018), A study on Behaviour of Youngsters towards Fast Food Restaurants, International Journal of Emerging Research in Management and Technology Vol. 7, Issue 1, pp1-7.
2. Abraham, S., Manuel, M., et al., (2018), College student’s perception of risk factors related to fast food consumption and their eating habits, Journal of Nutrition and Human Health Vol.2, Issue 1, pp18-21.
3. Ashakiran&Deepthi, R., (2012), Fast Foods and their Impact on Health, Journal of Krishna Institute of Medical Science University, Vol.1 (2), pp7-15.
4. Baig, A. K., &Saeed, M., (2012), Review of Trends in Fast Food Consumption, European Journal of Economics, Finance and Administrative Sciences, Issue 48, pp77-84.
5. Dhanve, V. B., Pari, V., Kumar, S., et al., (2018). A study to assess the knowledge and practice of fast food consumption among Pre-University in Udipi Taluk, Karnataka, India Clinical Epidemiology and Global Health, Elsevier, Page: 172-175.
6. Deshmukh, M.S., & Vyavahare, S.S., (2018), An Analysis of Consumption Expenditure in India, European Academic Research, Vol.5, Issue 10, pp5270-5285.
7. Goyal, A., & Singh, N.P., (2007), Consumer Perception about Fast Food in India: An Exploratory Study, British Food Journal, Vol. 109(2), pp182-195.
8. Hesamedin Askari Majabadi, et al (2016). Factors Influencing Fast Food Consumption Among Adolescents in Tehran: A Qualitative Study. Iranian Red Crescent Medical Journal. 18(9). DOI: 10.5812/ircmj.23890
9. Kaushik, J. S., &Narang, M., (2011), Fast Food Consumption in Children, Indian Pediatrics, Vol.48, pp97-101.
10. Kashyap, M., Kashyap, K., &Sarda, A., (2013), A study of Growth of Fast Food Industry with reference to Shift in Consumer’s Buying Habits in Nagpur City, International Journal of Application or Innovation in Engineering and Management.
11. Keshari, P., & Mishra, C.P., (2016), A growing menace of Fast Food Consumption in India: Time to act, International Journal of Community Medicine and Public Health, Vol.3, Issue 6, pp1355-1362.
12. Khan, S., et al., (2013), Determinants of Customer Satisfaction in Fast Food Industry: A Study of Fast Food Resturants Peshawar Pakistan, Studia Commercialia Bratislavesia, Vol. 6, No. 21, pp56-65.
13. Khongrangjem T., et al., (2017) , A study to assess the knowledge and practice of fast food consumption among Pre-University students in Udipi Taluk, Karnataka, India, Clinical Epidemiology and Global Health, pp172-175
14. Kumar, H., Palaha, R., & Kaur, A., (2013), Study of Consumption, Behaviour and
Awareness of Fast Food among University Hostlers, Asian Journal of Clinical Nutrition Vol. 5 (1), pp1-7

15. Majabadi, H.A., Solhi, M., et al., (2016), Factors Influencing Fast Food Consumption among Adolescents in Tehran: A Qualitative Study, Iran Red Crescent Medical Journal, Vol. 18(3), pp1-9.

16. Meena, M., & Varma, K., (2015), Fast Food Consumption among Adolescent School Girls in Jaipur, International Journal of Innovative Research and Review, Vol. 3(3), pp38-42.

17. Mohammad, T., (2004), Attributes Influencing Preference of University Students on Fast Food Outlets, Tourism Educators Association of Malaysia, Vol. 1(1), pp77-88.

18. Naheed V., (2013), Prevalence of Fast Food Intake among Urban Adolescent Students, The International Journal of engineering and Science, Vol. 2, Issues 1, pp353 to 359

19. Narayan B., & Prabhu M., Examining fast food Consumption behaviour of students in Manipal University, India, African Journal of Hospitality, Tourism and Leisure, Vol. : 4 (2) 2015

20. Nondzor, H.E., & Tawaih, Y. S., (2015), Consumer Perception and Preference of Fast Food: A study of Tertiary Students in Ghana, Science Journal of Business and Management, Vol. 3(1), pp43-49.

21. Onurlubas, E., & Yilmaz, N., (2013), Fast Food Consumption habits of University Students, Journal of Food Agriculture & Environment, Vol.11 (3&4), pp12-14.

22. Subhalakshmi, K., & Dhanasekar, M., (2018) A study on Fast Food Culture among Teenagers in Urban India, International Journal of Pure and Applied Mathematics, Vol.20, No.5, pp215-238.

23. Syafiqah, I.N., Normala, R., et al., (2018), Fast Food Consumption Behavior among University Students, International Journal of Research and Innovation in Social Science, Vol.2, Issue XII, December 2018

24. Shami Y. & Fatima F., (2017) “Trend of Fast Food Consumption among College Girls” International Journal of Scientific & Engineering Research, Vol. 8, Issue 2.

25. Song, Y., (2016), “Factors that affect fast food consumption: A review of Literature” Johnson and Wales University Scholars Archive

26. Thakkar, K., & Thatte, M. R., (2014), Consumers Perceptions of Food Franchise: A study of McDonald’s and KFC, International Journal of Scientific and Research Publications, Vol.4, Issue 3, pp1-5.

27. Vasileska, A, & Rechkoska, G., (2012), Global and Regional Food Consumption Patterns and Trends, Procedia: Social and Behavioral Sciences, Vol.44, pp363-369.