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Customer perception about eating street food in Meerut city after unlock phase - 3

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Abstract

Following the completion of phase three of COVID-19, this research paper examines perceptions about street food consumption in Meerut City. The hospitality sector was hit hardest by the pandemic, as it was the first sector to close and open in phases, and street food is a major part of the hospitality sector, but it is an unorganized sector, as street food is essential to meet the needs of millions of urban dwellers in developing countries. People who regularly consume a large variety of foodstuffs which are relatively affordable and easy to access, Chen *et al.* 2008. In multiple choice format 165 respondents have been asked to fill in a structured questionnaire.

Keywords: COVID-19, street food, FSSAI, NASVI, Meerut, customer perception

Introduction

Street food is defined by Yatmo, 2008 [25] in Sangwan Borora, 2015, as food sold on the streets near universities, hospitals, schools, markets, cinemas, and busy public places, which are often served or cooked or prepared on a cart or small stand. Street food is preferred by customers because it is readily available to be consumed immediately and could easily be eaten unprocessed. Preparation is bought at home, or a place where the consumer wants to eat later. Street food is a little cheaper than restaurant food.

Street food is an essential part of any country's cuisine, it reflects the country's culture, the way people eat, use local ingredients, and sometimes fusion food where flavours are mixed with local and international flavours, Street food contributes to the tourism industry greatly, where it attracts domestic as well as international tourist, food tourism has taken a new form and its new trend where people would take street food tours and explore the food from streets to authentic cuisine. The popularity of street food has increased over the years as it contributes to the employment generation and earns profits for local people, therefore, a lot of people would want to sell street food, these foods are highly in demand for dominant reasons like their tastes, ease of availability, low cost, social and cultural values are attached its habit of people to eat street food.

Growth of Street Vending (Sharit & Bhowmik, 2005) [1]. A person selling goods to clients in the streets with no permanent structure like a store or hotel, can be called street vending. Vending on the street is common in Asia, a culture that has been growing steadily since 1998, precisely because of the financial crisis due to an increase in food and clothing vending for streets such as India, Thailand, Singapore, or the Philippines. Workers who lost their employment in the formal sectors because of the financial crisis have been turning into street vendors to make a living. The term Hawker is often used to refer to street vendors. In India, the National Policy for Urban Street Vendors/Hawkers explains that street vendors represent approximately 2 percent of the population of a metropolitan area. It is estimated that there are at least 10 million street vendors in the country. It is necessary to highlight that the key reason for their contribution to the economy was employment of people, as they were able to survive or become popular over time and sustain a large competitive environment at all levels. They are designed to meet the needs of several economic classes, such as poor, urban poor and middle class. On the other hand, they are often described as illegal and vendors are frequently referred to as criminals. Local authorities, for example the police, often harass them, it is generally assumed that they are not competent to take over the business.

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They are popular because they respond to the needs of a city population, which is not served by municipalities or retailers. Pilz, Gengaiyah & Venkatram, 2015)^[14]. India is a country where diversity, from culture to population to economy, can be said to be universal. It has got the largest young population in the world. India has two types of labour markets, namely a formal economy with organized labour and an unorganized sector that does not participate in the economy but is indirectly contributing. The Indian government has taken an initiative to organize this sector by regulating street vendors, as the economic sector and the labour market are very large by international standards, and Indian policymakers cannot afford to ignore it in terms of training and labour market policies ILO 2002; King 2007).

NASVI is a National Federation of Street Vendor Organizations working for the protection and livelihood of vendors across the country beginning as a network in 1998 it was registered in 2003 under the Society's Regulation Act of 1816. The objective of establishing NASVI is to bring together street vendors organizations in India for a collective struggle against microlevel changes that, due to outdated legislation and changing policy practice and attitudes towards the powers which constitute it, were imminently affecting the lives of around ten million traders who have been severely threatened. An Executive Committee meeting shall also be held once a year to review and set out strategies for the next reference, as well as in order to promote awareness among street sellers who assist the State government and various regulatory bodies with implementation of legislation. National Conventions and Annual General Meetings between vendor leaders are organized each year all over the country.

FSSAI: Food safety and Standards ACT, 2006 established by the Ministry of Law And Justice (Legislative Department) New Delhi, the 24th August 2006/Bhadra2, 1928 (Saka) The Act of Parliament received the assent of the President on 23rd August 2006. The government has a policy objective to include FSSAI in order to verify that food products given to consumers are healthy and suitable for human consumption. The protection and promotion of human health shall be under the responsibility of FSSAI. Therefore, the authorized body to penalize non-compliant businesses. This Regulation establishes the safety of food, which is mandatory for all food sellers, from street vendors to the five-star hotel and food manufacturing industry, to have a license issued by the FSSAI. Under this act food safety officer is appointed and at local levels the officer is responsible of the duties to do safety audits, food manufacturing, selling units, taking samples to examine them if they found any wrong practices are administered, companies, manufacturing units, and vendors are charges with fine depending upon the severity of the case it may lead to closing of the outlet.

COVID-19 pandemic co-relation of selling street food and eating street food

A virus group's name is corona. In India, these viruses have been known for some time. In addition to SARS, which was first identified in 2003, and MARS discovered in 2012, coronaviruses are responsible for other diseases. However, a different coronavirus than the one that has been identified in this outbreak in Chinese city of Wuhan on 12 December 2019 is present. That's why it's called Novel, a new coronavirus. COVID 19 was called a disease by the World Health Organization.

Origin of Corona

Humans are being infected with the corona virus from animals. They are mostly found in bats. The human body is invaded by microorganisms in the animal world due to numerous deforestations, urban development, raw meat-eating habits and so on.

Preventive Measures to Control the Disease

WHO declared this as a pandemic therefore all the countries in the world announced lockdown as preventive measures in India first lockdown was announced on 23rd March and implemented on 25th March 2020 for 15 days.

Review of Literature

WHO COVID-19 report on food safety report published on 21 Feb. 2020 the International Food Safety Authorities Network (INFOSAN), national food safety authorities are finding out more information on the possible presence of COVID-19 on foods trade internationally as well as potential transmission of virus form this food, they are finding out how long it will survive on it and general rules for the eating and consuming raw food, undercooked animal product, milk, and milk products how it has to be handled to avoid cross-contamination as well as COVID-19 virus risk following safety points they have displayed on the manual of WHO for safe food For consumption in hotels and selling of the food. Those key points are.

- Keep clean during transportation.
- Separate raw and cooked food while storing and during transportation from one place to anotherplace.
- Cook thoroughly while cooking and serving the food, hot food hot cold food cold.
- Keep food at safe temperatures.
- Use safe water and raw materials while cooking and serving the food

(On the press release from NASVI29/9/20) organization "Campaign "Bring Them Back" to bring thousands of street food vendors back to their livelihood" NASVI will train and provide access to COVID-19 protection kit to Street vendors in India. For this cause NASVI raised funding form common people from across the world donated from Rs 10 to Rs 10,000/- to support the vendors and bring themback on their feet after the lockdown which affected lacks of street vendors across the country. Ms. Sangeeta Singh - Head Street food Program gave the introduction and informed the vendors about their hygiene & safety. Ms. Siya Mishra - gave training to street food vendors informing them about the hygiene practices they must follow during and post COVID - 19 pandemics. The campaign aims to provide training and access to hygiene. Celebrity chef MR. Ranvir Brar in association with NASVI and Food Safety and Standards Authority of India (FSSAI) decided to conduct online training workshops for street- food vendors to show them the best practices of preparing food safely during a pandemic. The idea is not only to provide these vendors with the equipment they need-gloves, sanitizers, hygiene kits - to restart their businesses but also to give them the skill-set to run their ventures healthily and safely, At the same time it will help them come out from the suffering financial condition by instilling public confidence in street vending. On successful completion of the training modules, Participants would be certified by FSSAI, giving a boost to their businesses.

(NASVI Press release 06 Oct'20) In a first of its kind initiative, the Ministry has coordinated with thekey

stakeholders including Municipal Corporations, FSSAI, Swiggy, and GST officials to ensure that necessary prerequisites are completed for this initiative, Govt Partners Swiggy to Take Street Vendors Online the initiative is part of PM SVA Nidhi Scheme introduced on June 01, 2020, to help street vendors impacted by the COVID-19 pandemic resume livelihood activities. Swiggy has partnered with the Housing and Urban Affairs Ministry (MoHUA) to enable street vendors to go online. As part of the partnership, Swiggy will be onboarding 250 street food vendors in Delhi, Ahmadabad, Chennai, Indore, and Varanasi. Later, it will be rolled out in other parts of the country. This platform will give Street foods vendor's online access to its consumers and help these vendors grow their businesses.

According to Akash Chandrashekhar Gulankar June 2020 article named "Hit by lockdown, Pune's food joints, trinket shops turn green grocers" most of the street food vendors have changed the business they have started selling groceries and fruits and vegetables upon interview with Mr. Ismail Bhagwan, owner of popular mutton joint Khwaja Garib Nawaz (KGN) in Pune city has turned his joint into a vegetable shop after his sales drooped because of the nationwide lockdown triggered by the corona virus pandemic. Bhagwan is not the sole one to shift from a trade, established over years, to another to create ends meet. Reasons to maneuver to the selling fruits and vegetable during the lock down as only essentials services were allowed and fruits and vegetable comprise that category.

Sanjana Shenoy May 12, 2020 from curly tails writes in her article about street food vendors are undergoing E-training on hygiene, protective and safety measures to be adopted to fight COVID-19 in association with The National Association of Street Vendors of India (NASVI) they are going to train 500 street food vendors in partnership with FSSAI it will assist street food vendors in earning their livelihood by strictly following certain safety measures. As an element of the primary phase, vendors got training on Saturday. They informed and educated about the various sorts of precautionary measures which include food, safety, health, and hygiene. They were also taught about the utilization of disposal plates, glasses and therefore the safe use of alcohol-based hand sanitizers. Except for this, the importance of social distancing and hand wash was also explained to them. Upon interview with Mr. Bhaskar from NASVI he said street food vendors are most affected because of lockdown as most of the street food vendors are self-employed, they often borrow money from money lenders, he mentions that NASVI has appealed to the Ministry of Urban Development and National Livelihood Mission to grant interest-free loans to those street vendors.

(Ranka. S, 2020) ^[17] Research paper titled "How Corona Virus could affect the Culture of Eating Special respect to Street Food: THE NEW NORMAL" "this research paper talks about how food industry will accept the new normal for the food and restaurant industry specifically street food vendors will adopt the new changes which are totally supported the hygiene factor, sanitation, social distancing. This study was conducted to judge the requirement of food sanitation, food safety knowledge and practices to cope up with COVID-19 so people can eat street food with assurance. Findings presents that street food is a very important a part of the food supply chain management, they generate good employment in addition as contribute to the economy, they are facing challenges in COVID-19 as people are paying more attention to the security and hygiene standards. lastly research note that

consumer will still eat form street food vendors they are trying to find food which is prepaid in additional hygiene and sanitize conditions together with the private hygiene followed like wearing caps and aprons, and following social distancing norm.

(Reddy. A, Ricart. S & Cadman T, 2020) ^[18] Research paper titled "Driving factors of food safety standards in India: learning from street-food vendor's behavior and attitude". This research paper talks about safety standards followed by the road food vendors in Delhi, and Hyderabad survey was conducted in numerous socioeconomic sectors for Delhi and Hyderabad 200 street food vendors. In findings it has been noted that about one third of the street food vendors do not follow the protection norms while selling and manufacturing food, they need not registered themselves to run the food shops or kiosks this norm laid by the FSSAI in India. It is also noticed that they lack in personal hygiene standards. The results show that street food vendors who are in higher economic spending area. Street food vendors do follow safety norms also as personal hygiene standards. Key finding from the paper is food safety and hygiene standards laid by the governments at par with the developed countries but actual implementation by street vendors isn't very assuring a number of them follow where others don't follow them in the slightest degree in Delhi city where as Hyderabad Street food vendors were more tuned in to food safety, both in registering with the FSSAI and in terms of visits from food inspectors. The results of the research also suggested that street-food vendors in Hyderabad were more concerned about obtaining a food safety license or registering with an office than street-food vendors in Delhi. In suggestion research suggest that The FSSAI and street-food vendors associations, along with local administrations, should collaborate in registration procedures, and basic amenities should be made available to street vendors to enable them to extend their awareness about, and practice of, good food hygiene.

21 June 2020 article by Krishnankutty. P published in the online newspaper named the Print "Street Food Vendors Are Back After COVID Safety Training, Now Hoping For Business to Return" street food vendors are struggling to urge the business back though they're following norms of food safety and social distancing, regardless of the very fact that they stand call at the heat all day and it's the peak of summer, they're conscientious about wearing their masks and gloves and have even taken on additional costs to confirm food hygiene. Varma tells The Print. Varma is one in every of 1,500 street food vendors across India who has completed digital training on COVID-19 food safety guidelines, facilitated by the Food Safety and Standards Authority of India (FSSAI) in partnership with the National Association of Street Vendors of India (NASVI). Many like Varma have received food safety training and certification (FOSTAC) that they display on their carts or stalls. According to Sangeeta Singh, head of the street food program at NASVI, the certification is the first step toward providing good food and safe food to boost the morale of the street food vendors and consumers "The training, began during lockdown so it occupied street food vendors and that they had 100 street food vendors per day for the training which incorporates two- to three-hour Zoom sessions spread over two days, focuses on food hygiene and COVID precautions. It's already given vendors confidence and that they are getting a decent response. upon an interview with Mr. Jain who is that the owner of the Bengali sweet cart running from 1963 said his business suffered lots as most of the worker went home, they

did not return, having said this NASVI said that they are in talks with Swiggy & Zomato and other food delivery platforms to deliver the street food at home, on the other hand, Mr. Jain raised the question about why people would pay extra on home deliver? As people favor eating street food on the street that's enjoyment. Further, he adds whether street food is going to be redefined in a very post-COVID world.

(Sabbithi. A, *et al*, 2017) ^[19] Research paper titled "Identifying critical risk practices among street food handlers" this research paper explains the way to prioritize food safety practices by street food vendors which can deliver more safe food to eat and can avoid microbial contamination through street food. The study was conducted in the city of Hyderabad in India. The conclusion of the study notes that food safety training programs must conduct on the regular basis.

(Sezgin, & Şanlıer N, 2016) ^[3] this research paper titled "Street food consumption in terms of the food safety and health" explains street food and its consumption in correlation to hygiene and sanitation, researcher highlight focused on why customers prefer street food over restaurant food when it's safer to eat or safety and hygiene is more followed within the restaurant, street food is preferred over a home-cooked food or restaurant the most dominant reasons were it is easily available, and priceless money than the restaurant. Studies also show that where street foods sold, they do not follow any safety and hygiene guidelines, in many countries, there aren't any legal rule and safety implementations don't seem to be set. Studies also rule that street food carry a lot of food and hygiene risk, like illegal food substitutes, a lot of chemicals, additives are being employed besides microbial food contamination. Studies also revealed that most of the road food vendors do not follow basic hygiene standards and procedures, while preparing, storing food, therefore they must travel for educational training programs particularly on hygiene standards and basic safety procedures.

(Sangwan. V, Boora. P, 2015) this research paper titled "A Study of the security Consumer Perception and Consumption of the street Foods Sold in Hisar City, Haryana" particularly talks about consumers' perception, preference, safety aspects and consumption of street foods. The research was conducted in Hisar city of Haryana. Findings were from the chosen sample most of the working men (64%) preferred street food as their just the once lunch. It has been also found that girl's student frequently consumes street food over male students their frequency of to consume the street were alternate days. Most of the working men weren't bothered about food hygiene and food quality of street food vendors. Working women were more bothered about food hygiene and food quality. Students were more drawn to the street food for the taste they were ignorant of the food hygiene followed by the street food vendors. Street food vendors were lacking a lot of personal hygiene standards they were handling money with the identical hand from they were serving food with bare hand this might be the most dominant reason for food contamination. Researcher suggests that there is a strong need for food safety and private hygiene for street food vendors.

(Pilz. M, Gengaiyah. U & Venkatram. R., 2015) ^[14] Research paper titled "Skills development in the informal sector in India": The case of street food vendors. Research has studied the 49 street vendors across New Delhi and Coimbatore India for skill development. The research mentions that India has a large informal sector that contributes to the Indian formal economy where these street food vendors have not received any formal training to be street food vendors. This training is known as formal vocational education and training (VET).

The author's findings show that though street vendors have not received formal training they have exceptional and expertise to sell the food to prepare the food they know what customers want, who their competitors are. They acquire these skills through observation and from the family. In an interview with them when asked about why they did not seek any formal education or training, they said that the main obstacle to learn is they are busy with the business that they run, the business is also uncertain as a lot of problems like inadequate capital, licensing difficulties, no permanent location and soon they deal while doing business on day-to-day basis. In suggestions authors suggest that government and NGO should develop the formal training program for the street food vendor to enhance the skill.

(Mahadevia. D, Vyas. S & Mishra. A March 2014) ^[12] Research paper titled "Street Vendors in Ahmadabad, India". In the present study, a survey was carried in Ahmadabad city on street vendors. In this research, the paper researcher proves that there are large sectors of informal workers that contribute to the formal economy of India. In developing countries, 80% of the population makes their livelihoods by doing jobs in the informal economy. For the data 75 focus group participants per sector, plus another 75 workers for a total of 150 in each city-sector was chosen. They have been asked for information on the household profile and income sources of the workers. In conclusion, the researcher concludes that street vendors have a lot of competition to sell the goods, and the perishability of the good is also a problem because of storage space.

(Gadi. C, Bala. K, Kumar. A., 2013) ^[7] Research paper titled "Study of Hygienic Practices of Street Food Vendors in Allahabad city, India and Determination of Critical Control Points for Safe Street Food". This research paper mainly talks about personal hygiene and food handling practices followed by street food vendors in Allahabad city, for the study 30 street food vendors have been chosen as the sample for the study. 52 food samples were also collected for safety and checking any contamination which will have any potential for the food poisoning or coli and salmonella bacteria particularly, after studying the samples carefully tested in laboratories it has found that most of the food has the risk of salmonella and coli, due to un-purified water has been used while cooking the food, most potential food which caused the risk of food poisoning was sugar cane juice and Pani poori. Contamination reason was poor personal hygiene, poorly maintained premises and poorly cleaned pots and pans, it has been also found that they do perpetration of food much before cooking and this unprepared food is exposed to pollution and dust which is more harmful to health. Researchers suggest that street food vendors need strong training towards following HACCP as well as personal hygiene so that it will minimize the risk of food poisoning and increase food quality.

(Tambekar. H, Kulkarni. V, Shirsat. S & Bhadange. D, 2011) ^[21] Research paper titled "Bacteriological Quality of Street Vended Food Panipuri: A Case Study of Amravati City (Ms) India" in present study survey was carried out in Amravati city, 11 locations were selected to collect the sample particularly Panipuri. As Panipuri is the most popular street food as well it is preferred by different age groups also, on the study it is found that out of collected samples 93% of the Panipuri carried the risk of bacterial pathogens such as *Escherichia coli* (41%), *Staphylococcus aureus* (31%), *Klebsiella sp.* (20%), *Pseudomonas sp.* (5%) and yeast (3%). These pathogens are highly responsible for food poisoning. Forth contamination of the street food personal hygiene of

vendors is also responsible. As they lack in food safety procedures while handling food such as they don't wear the chef's cap while serving food, they touch the food with bare hands and with the same hands they touch the floor or soiled dishes they do not wash with soaps or cleaning running water. The researcher suggests that local government should take cognizance of this and impose a strict rule on the street vendors to follow the hygiene as well as to train them on food safety and hygiene standards.

(Bhowmik, S, 2005) [1] Research paper titled Street Vendors in Asia mainly focuses on the scale of street food vendors in different countries, along with government norms for them, in different countries in Asia, in India they have conducted studies in cities like Pune, Mumbai, Hyderabad, Bangalore, Kolkata this research paper also talks about the unionization and unorganized industry of street food vendors, in research, it also shows that street food vendors face the problem of capital, they mainly depend on loan from their family friends and moneylenders to support for capital. They do not approach financial institutes like a bank as too much paperwork involved and lots of paper work. Street food vendors in Asia contribute a good amount of money to the economy through its unrecognized sector provides services to the urban population. Why urban population prefers street food because it's cheap, readily available at all places like near busy streets, colleges, schools, hospitals, working offices, where people don't have much time to eat. In conclusion, research denotes that though street food vendors make a good contribution to the economy government looks at them as encroachment or criminals.

Objectives

1. To understand the driving factors to eat street food.
2. To study the impact of COVID -19 on food choices of customers in reference with street food.

Research Methodology

Sample: Total 165 respondents participated in the survey out of which 108 were male and 57 were female. The questionnaire was filled by the respondents for the research paper on "Customers Perception about Eating Street Food in Meerut City after Unlock Phase-3."

Primary Data: A structured questionnaire which consists of MCQ to record the perception of respondents towards eating street food in Meerut City after unlock- phase 3. The perception of participants was recorded on a Likert five-point scale in which 5 was scored as Strongly Agree, 4 as Agree, 3

as Neutral, 2 as Disagree and 1 as Strongly Disagree.

Secondary Data: It was gathered from the literature previously written through research papers, government reports, news articles etc.

Hypothesis

H1: COVID -19 has an impact on frequency of eating street food.

H2: Driving factors to choose street food vendors have changed due to COVID-19.

Data Analysis Gender

Demographic profile of respondents is elaborated by pie diagram. Data given in pie diagram indicates that 65.5% of respondents were male, and 34.5% female.

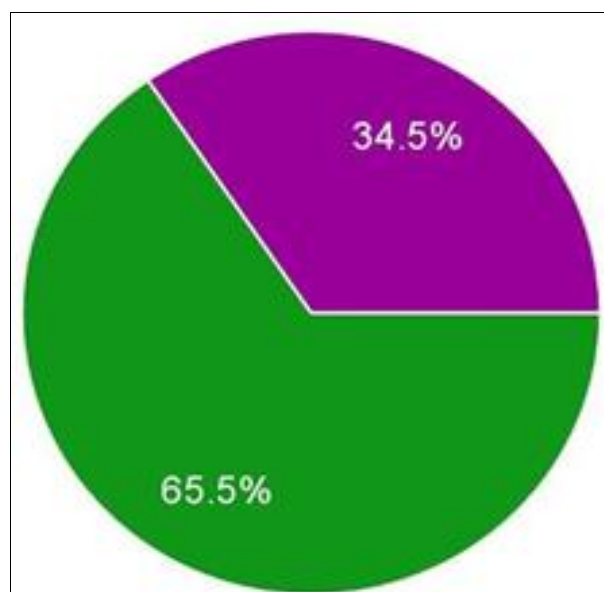


Fig 1: Gender

Age

Maximum numbers of respondents 66 were between in the age group of 11 to 21. 37 respondents fall between the age group of 22-32 years. 49 respondents fall between the age group of 33 to 43. 10 respondents fall between in the age group of 44 to 54. 3 respondents fall between in the age group of 55 to 65.

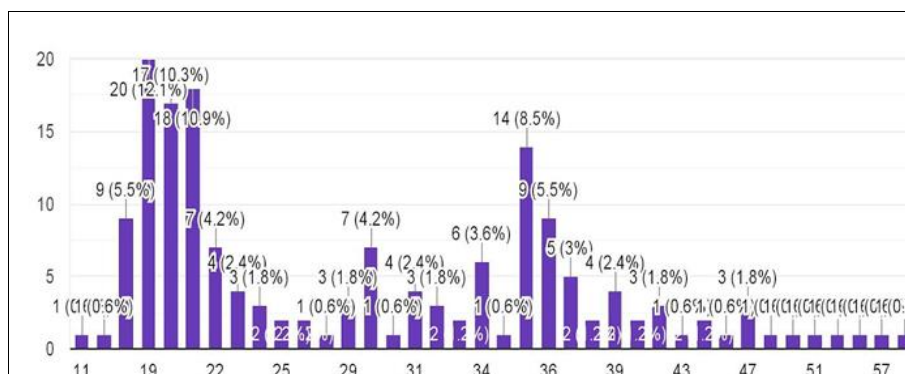


Fig 2: Age

Qualification

Data given in pie diagram indicate that out of 165

respondents, 77 respondents i.e., 46.7% were student, 34 respondents were professional i.e., 20.6%, 34 respondents

were working that is 20.6%, 15 respondents were form service profession that is 9.1%, 5 respondents were house

wife or home maker which is 3%.

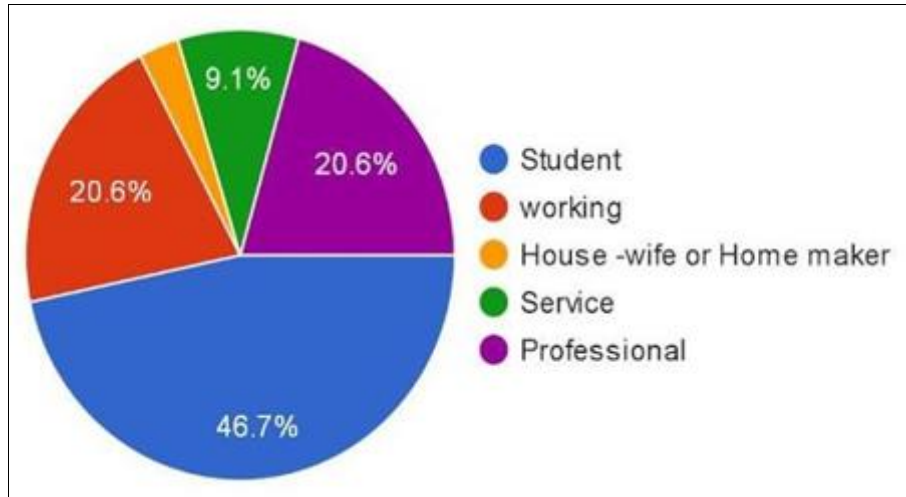


Fig 3: Qualification

Do you like to eat street food

Data given in pie diagram indicate that out of 165 respondents, 142 i.e., 86.1% said they do like to eat street

food. 19 i.e., 11.5% said that they may like to eat street food and, 4 i.e., 2.4% said no they do not like to eat street food.

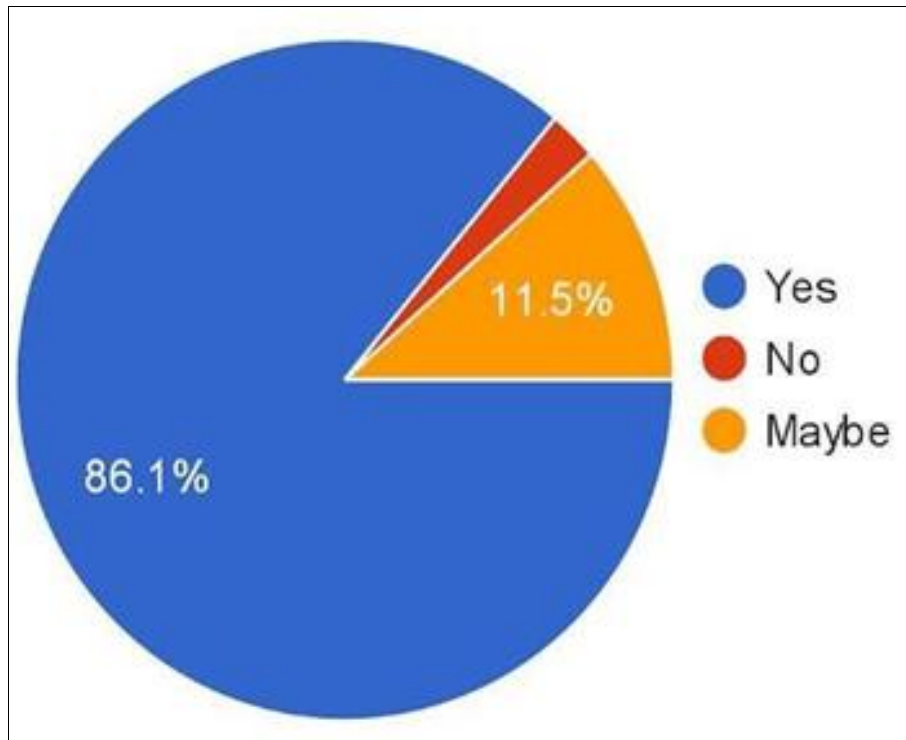


Fig 4: Do You Like to Eat Street Food

What kind of street food you eat

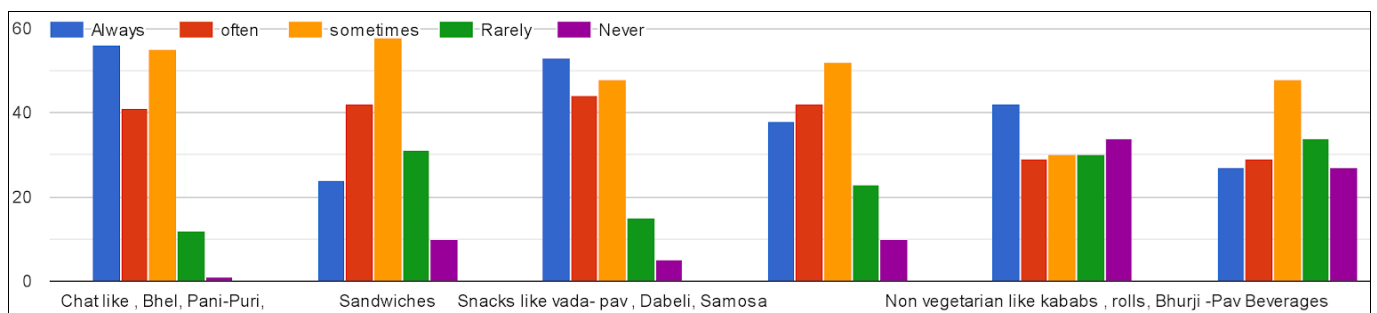


Fig 5: What Kind of Street Food You Eat

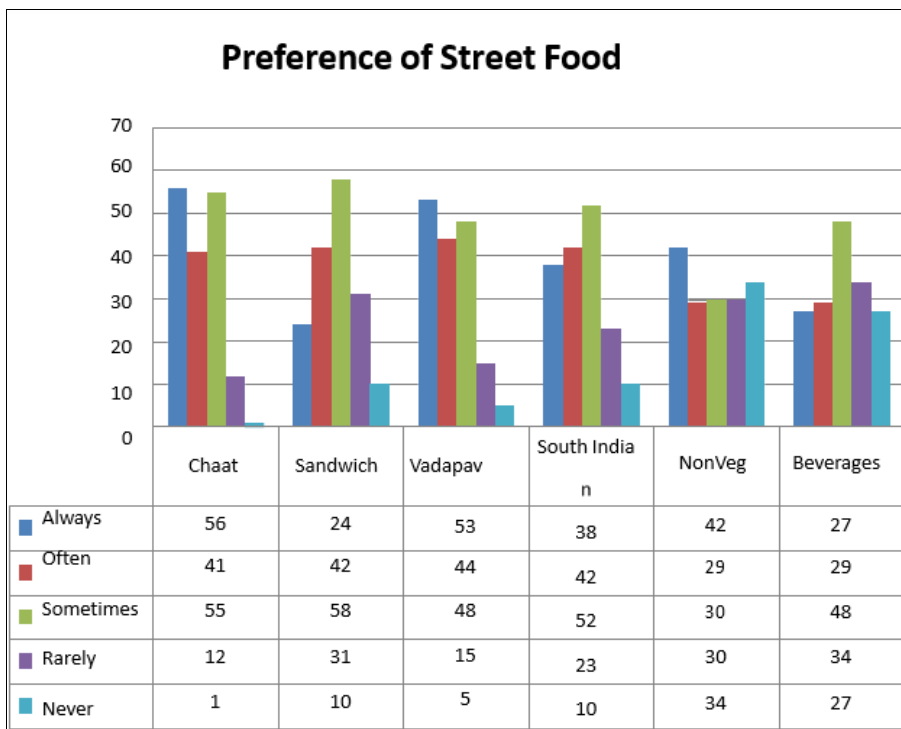


Fig 6: Preference for Street Food

Data given in chart and diagram indicate that out of 6 options 56 respondents always prefer to eat chaat items such as Bhel, Pani-Poori, followed by 53 respondent's snacks prefer to eat vadapav, Dabeli, followed by 42 respondents prefer Non-Vegetarian options such as kebabs, rolls Bhurji-Pav, followed

by 38 respondents prefer South Indian food items such as Idli, Dosa. Followed by 27 respondents prefer Beverages such as Tea, Coffee.

What drives you to street food

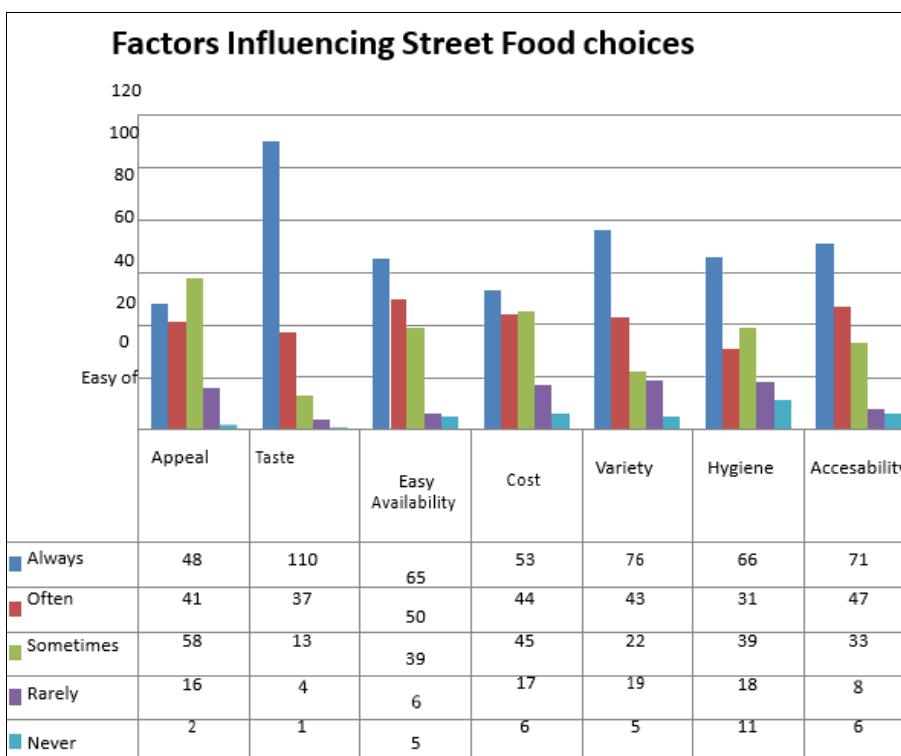


Fig 7: Factors Influencing Street Food Choices

Data given in chart diagram indicate that out of 165 respondents 110 respondents prefer taste as a driving factor to eat street food or taste is the factor that attracts respondents to eat street food. Followed by 76 respondents give preference to variety that is offered by street food vendors which attracts them to eat street food, followed by 71

respondents give preference to Accessibility that drives the respondents to eat street food, followed by 66 Respondent responding to hygiene factor that drives them to eat street food, 65 respondent preferred easy of availability drives them to eat street food, 53 respondent prefer cost as a driving factor to eat street food, 48 respondents prefer appeal factor to eat

street food.

How often did you eat street food before lockdown

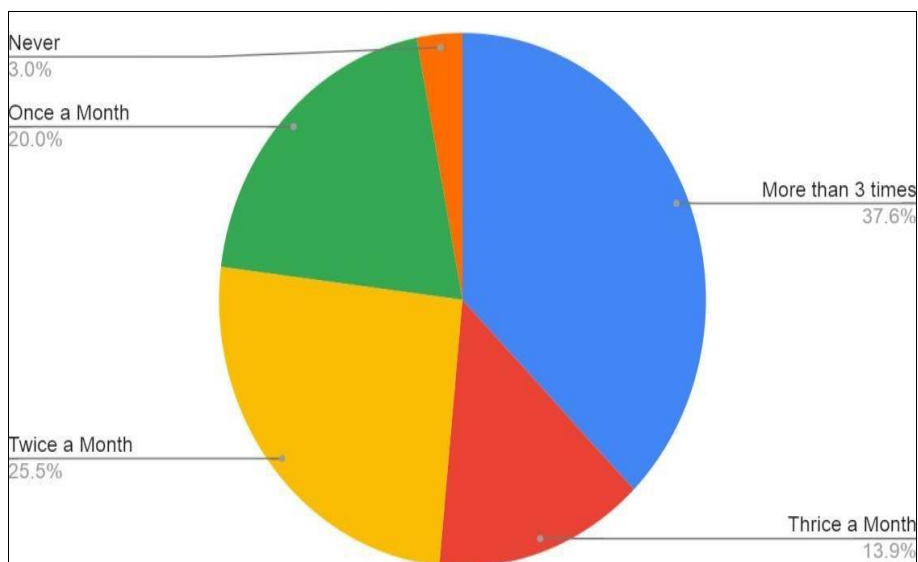


Fig 8: How Often Did You Eat Street Food before Lockdown

Data given in pie diagram indicate that out of 165 respondents 62 respondents that is 37.6% said they use to eat street food before lock down more than 3 times, followed by 25.5% which is 42 respondents said before lock down they use to eat street food twice a month, followed by 20% which is 30 respondent said they use to eat street food once a month,

followed by 23 respondents which is 13.9 said they use to eat street food thrice a month, followed by 5 respondents which is 3.0% said they **never** ate street food before lockdown.

How often do you eat street food after unlock

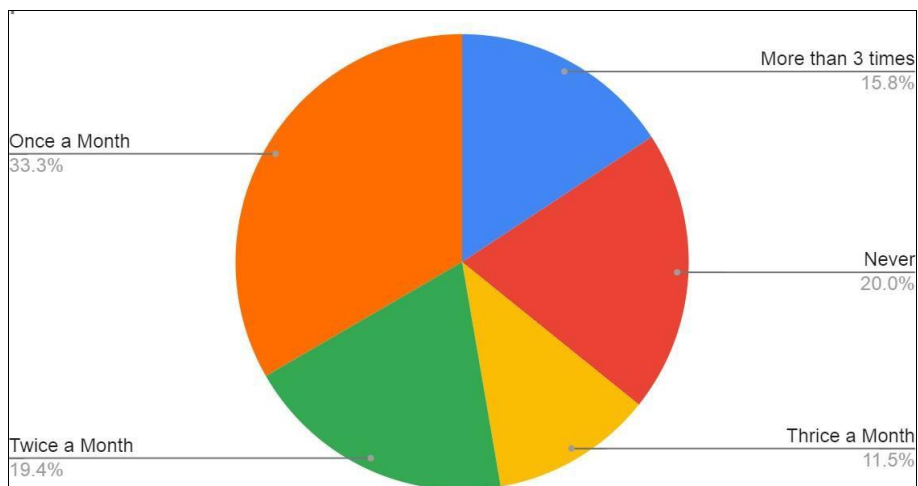


Fig 9: How Often Do You Eat Street Food After Unlock

Data given in pie diagram indicate that out of 165 respondents 55 respondents that is 33.3% said they eat street food after unlock 3 once a month, followed by 19.4% which is 32 respondents said after unlock 3 they eat street food twice a month, followed by 20% which is 33 respondent said they never ate street food after unlock 3 followed by 15.8% which is 26 respondents said they eat street food after unlock 3 more than 3 times, followed by 11.5% which is 19 respondents said they ate street food thrice a month after unlock-3.

H₀: COVID -19 has no impact on frequency of eating street food. **H₁** - COVID -19 has an impact on frequency of eating street food.

To find out whether the frequency of eating street food has affected due to COVID-19 T test was conducted to analyze the impact it.

H₁: Difference Scores Calculations Treatment 1 N1: 165

$$df1 = N - 1 = 165 - 1 = 164$$

$$M1: 3.63$$

$$SS1: 258.45$$

$$s21 = SS1 / (N - 1) = 258.45 / (165-1) = 1.58$$

Treatment 2

$$N2: 165$$

$$df2 = N - 1 = 165 - 1 = 164$$

$$M2: 2.7$$

$$SS2: 294.85$$

$$s22 = SS2 / (N - 1) = 294.85 / (165-1) = 1.8$$

T-value Calculation

$$s2p = ((df1 / (df1 + df2)) * s21) + ((df2 / (df2 + df1)) * s22) = ((164 / 328) * 1.58) + ((164 / 328) * 1.8) = 1.69$$

$$s2M1 = s2p / N1 = 1.69 / 165 = 0.01$$

$$s2M2 = s2p / N2 = 1.69 / 165 = 0.01$$

$$t = (M1 - M2) / \sqrt{(s2M1 + s2M2)} = 0.93 / \sqrt{0.02} = 6.53$$

The t-value is 6.52712. The p-value is <.00001. The result is

significant at $p < .05$.
 Results indicate that frequency of eating street food before lock down and after unlock-3 has changed hence the null

hypothesis has been rejected and alternate hypothesis has been accepted.

Table 1: What are the factors considered while choosing a street food vendor before lockdown

	Cost	Variety	Taste	Ease of Accessibility	Appearance	Hygiene	Service Time	Parcel
Always	67	76	128	76	63	92	74	66
Often	30	44	23	45	43	25	42	30
Sometimes	50	36	12	34	46	34	36	49
Rarely	14	6	1	7	9	8	5	16
Never	4	4	1	3	4	6	8	4

Data given in chart indicate that 128 respondents considered Taste as main factor to choose street food vendor before lock down, followed by 92 respondents considered Hygiene as main factor to choose street food vendors before lock down, followed by 76 respondents considered Variety as main factor to choose street food vendors before lock down, followed by 76 respondents considered Ease of Accessibility as main factor to choose street food vendors before lock down, followed by 74 respondents considered Service Time as main

factor to choose street food vendors before lock down, followed by 67 respondents considered Parcel as main factor to choose street food vendors before lock down, followed by 66 respondents considered Cost as main factor to choose street food vendors before lock down.

Factors considered for choosing street food vendor after unlock – phase 3

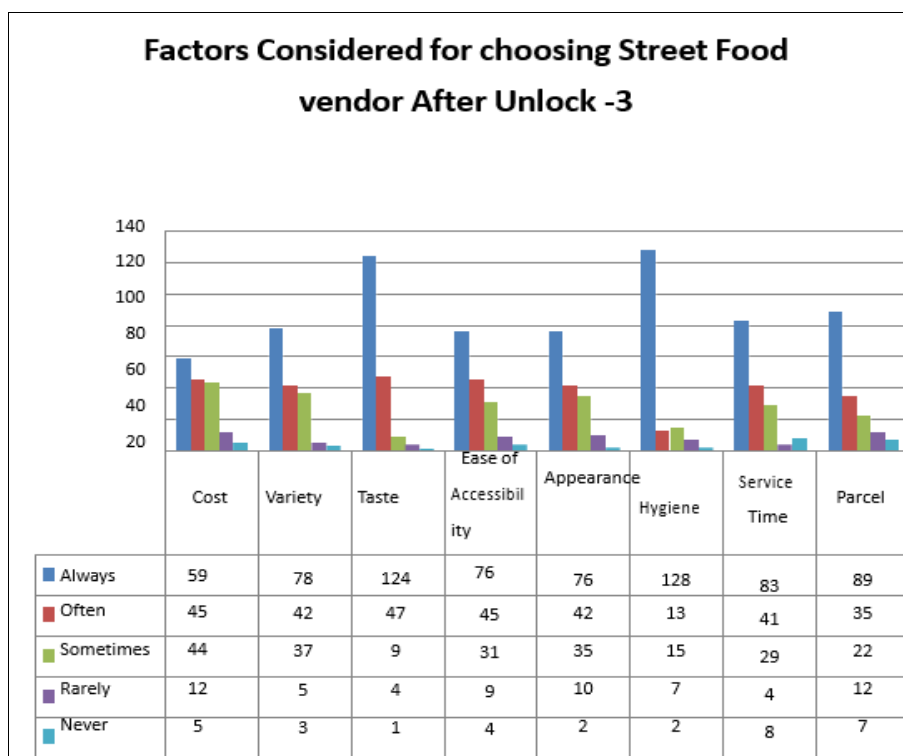


Fig 10: Factors Considered for Choosing Street Food Vendor After Unlock - 3

Data given in chart diagram indicate that 128 Respondents considered Hygiene as main factor to choose street food vendor after Unlock-3. followed by 124 Respondents considered Taste as main factor to choose street food vendor after Unlock-3 followed by 89 Respondents considered Parcel as main factor to choose street food vendor after Unlock-3 followed by 83 Respondents considered Service Time as main factor to choose street food vendor after Unlock-3 followed

by 78 Respondents considered Variety as main factor to choose street food vendor after Unlock-3 followed by 76 Respondents considered Easy of Accessibility as main factor to choose street food vendor after Unlock-3 followed by 76 Respondents considered Appearance as main factor to choose street food vendor after Unlock-3 followed by 59 Respondents considered cost as main factor to choose street food vendor after Unlock-3

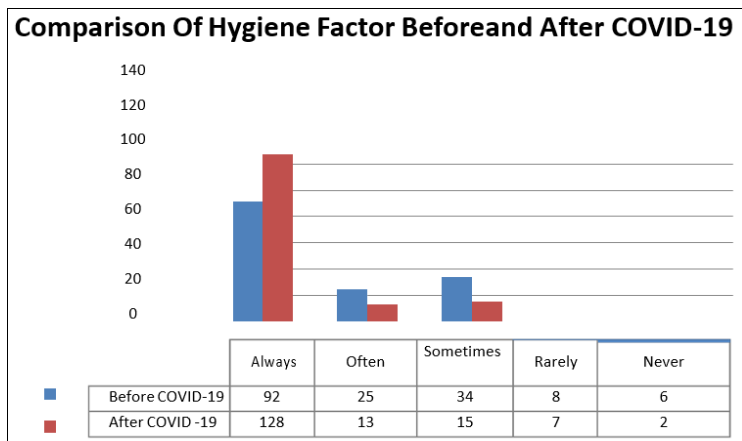


Fig 11: Comparison of Hygiene Factor Before and After COVID-19

Data given in the above comparison chart clearly shows that respondents considered Hygiene as main factor to choose street food vendors before COVID-19 it was 55.75%(92)

respondents who gave Hygiene as a main factor but after COVID- 19 it has increased to 21.82% (77.57% (128).

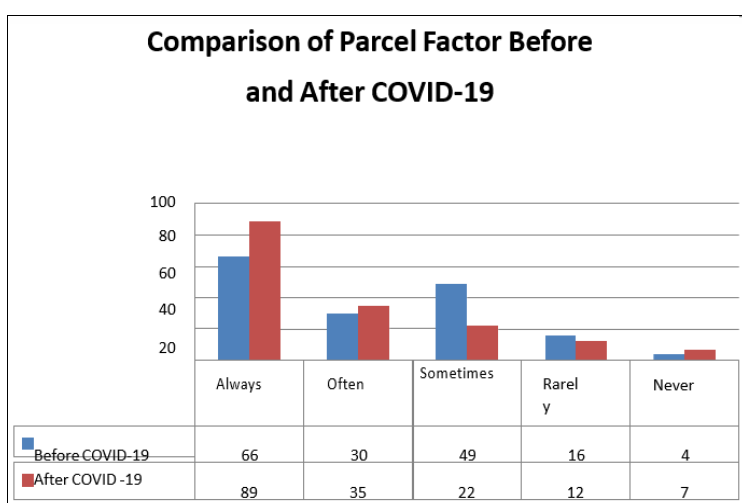


Fig 12: Comparison of Parcel Factor Before and After COVID-19

Data given in the above comparison chart clearly shows that respondents considered Parcel as main factor to choose street food vendors before COVID-19 it was 40% (66) respondents

who gave Parcel as a main factor but after COVID- 19 it has increased to 37.57% (77.57% (89).

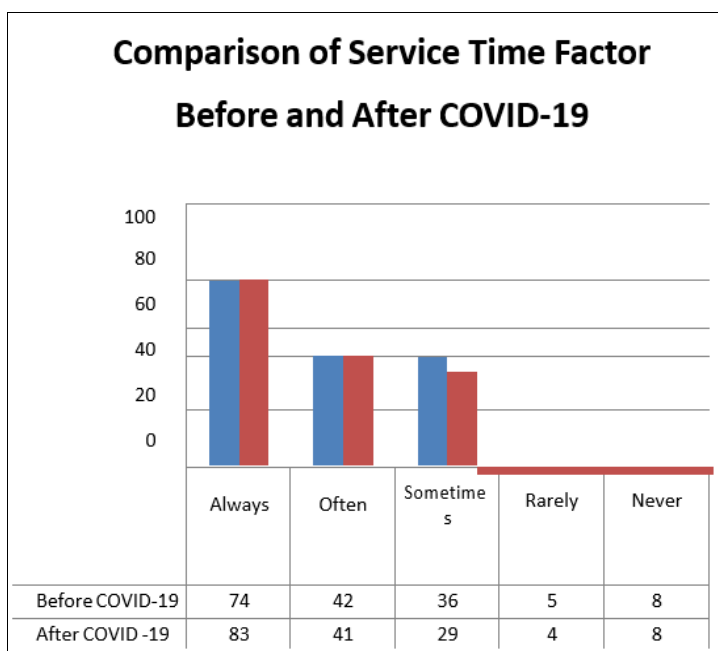


Fig 13: Comparison of Service Time Factor Before and After COVID-19

Data given in the above comparison chart clearly shows that respondents considered Service Time as main factor to choose street food vendors before COVID-19 it was 44.84%(74)

respondents who gave Service Time as a main factor but after COVID- 19 it has increased to 5.46% (50.30% (83).

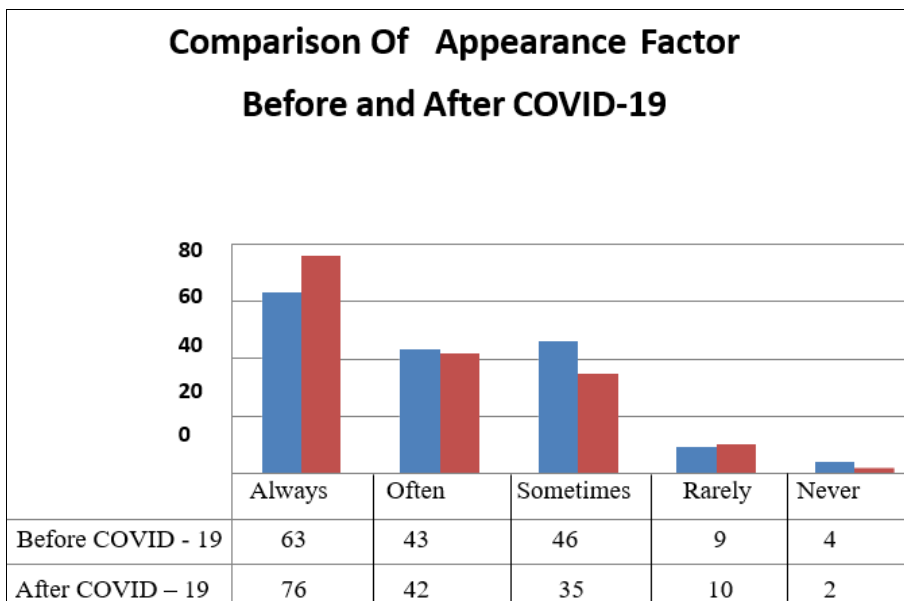


Fig 14: Comparison of Appearance Factor Before and After COVID-19

Data given in the above comparison chart clearly shows that respondents considered Appearance as mainfactor to choose street food vendors before COVID-19 it was 38.18% (63)

respondents who gave Appearance as a main factor but after COVID- 19 it has increased to 7.88% (46.06% (76).

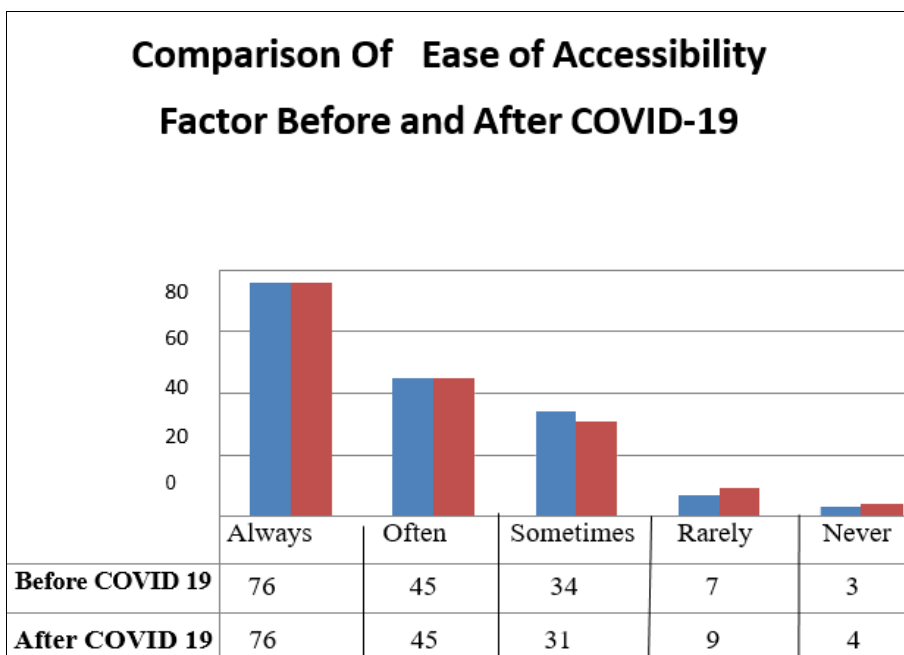


Fig 15: Comparison of Ease of Accessibility Factor Before and After COVID - 19

Data given in the above comparison chart clearly shows that respondents considered Ease of Accessibility factor remained same as it did not see any increase to choose street food

vendors before COVID-19 it was 46.06% (76) after COVID-19 Ease Of Accessibility remained same 46.06% (76).

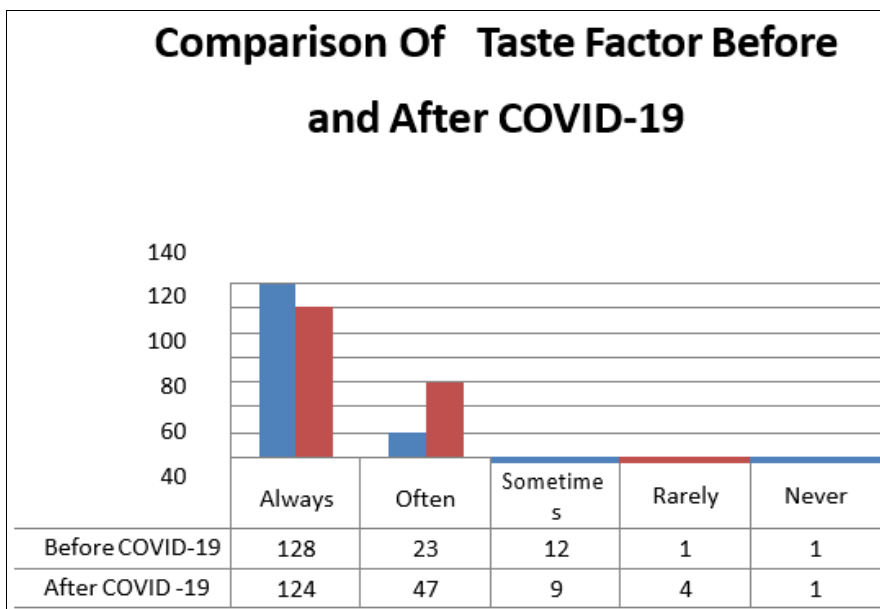


Fig 16: Comparison of Taste Factor Before and After COVID - 19

Data given in the above comparison chart clearly shows that respondents considered Taste as main factor to choose street food vendors before COVID-19 it was 77.57% (128)

respondents who gave Taste as a main factor but after COVID- 19 it has decreased to 2.42% (75.15% (124).

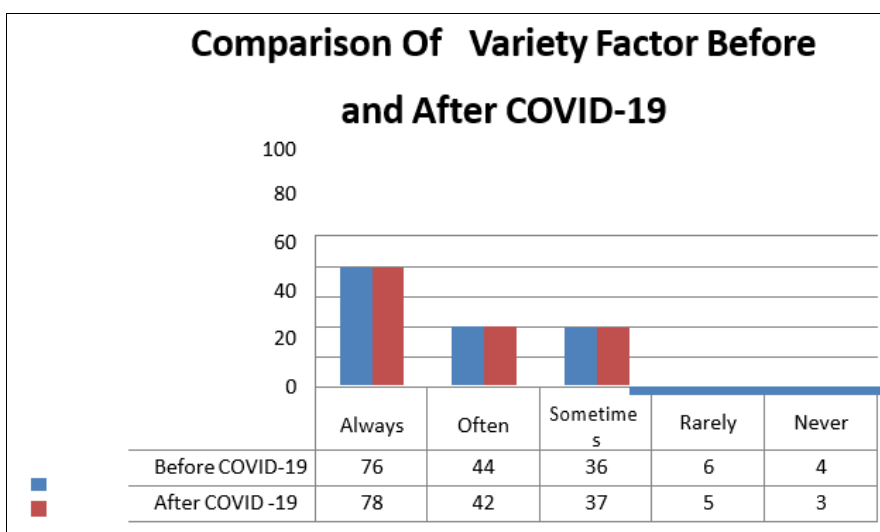


Fig 17: Comparison of Variety Factor Before and After COVID - 19

Data given in the above comparison chart clearly shows that respondents considered Variety as main factor to choose street food vendors before COVID-19 it was 46.06%(76)

respondents who gave Variety as a main factor but after COVID- 19 it has increased to 1.21% (47.27% (78).

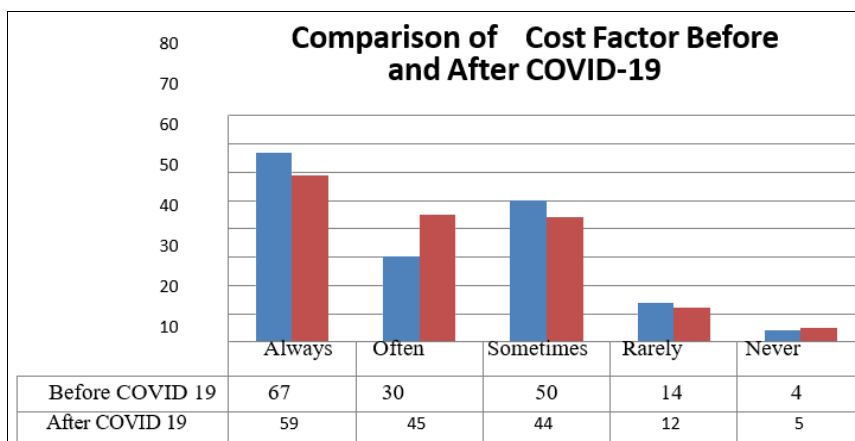


Fig 18: Comparison of Cost Factor Before and After COVID – 19

Data given in the above comparison chart clearly shows that respondents considered Cost as main factor to choose street food vendors before COVID-19 it was 40.60% (67) respondents who gave Cost as a main factor but after COVID-19 it has decreased to 4.85% (35.75% (59).

To find out whether the Driving Factors to choose street food has changed due to COVID-19 T test was conducted to analyze the impact it.

H₀: Driving factors to choose street food vendors have not changed due to COVID-19
H₂: Driving factors to choose street food vendors have changed due to COVID-19.

H₂: Difference Scores Calculations Treatment 1 N1: 165

$$df1 = N - 1 = 165 - 1 = 164$$

$$M1: 4.15$$

$$SS1: 208.51$$

$$s21 = SS1 / (N - 1) = 208.51 / (165 - 1) = 1.27$$

Treatment 2

$$N2: 165$$

$$df2 = N - 1 = 165 - 1 = 164$$

$$M2: 4.56$$

$$SS2: 136.58$$

$$s22 = SS2 / (N - 1) = 136.58 / (165 - 1) = 0.83$$

T- value Calculation

$$s2p = ((df1 / (df1 + df2)) * s21) + ((df2 / (df2 + df2)) * s22) = ((164 / 328) * 1.27) + ((164 / 328) * 0.83) = 1.05$$

$$s2M1 = s2p / N1 = 1.05 / 165 = 0.01$$

$$s2M2 = s2p / N2 = 1.05 / 165 = 0.01$$

$$t = (M1 - M2) / \sqrt{(s2M1 + s2M2)} = -0.42 / \sqrt{0.01} = -3.7$$

Significance Level

One-tailed or two-tailed hypothesis

The t-value is -3.70307. The p-value is.00025. The result is significant at $p < .05$.

Results indicate that deriving factors to choose street food vendors have changed after Unlock

-3hence the null hypothesis has been rejected and alternate hypothesis has been accepted.

Findings

Data collected from 165 respondent shows that people do like to eat street food irrespective of their gender and age.

Most favorite or preferred street food amongst the respondent were chaat items such as Pani Pooori, followed by snacks item such as vadapav and Debeli, followed by non- vegetarian item likerolls and kebabs.

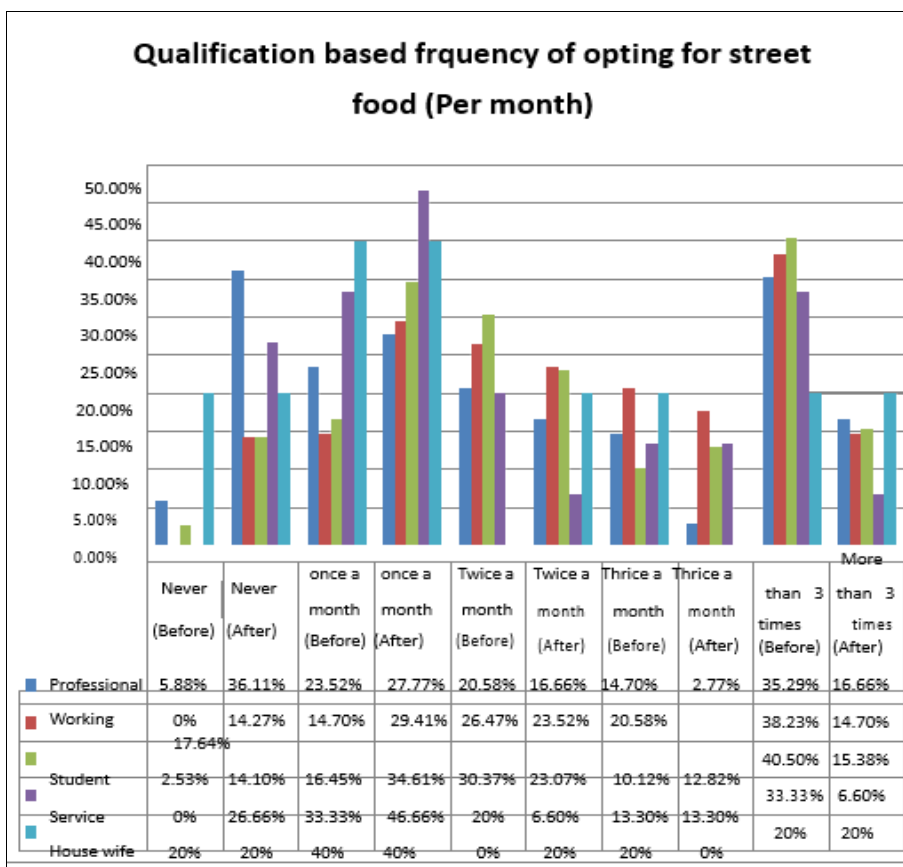


Fig 19: Qualification Based Frequency of Opting for Street Food (Per Month)

Form the chart it show that frequency of eating street food before and after unlock based on the qualification interprets that professional who never use to eat street food before lock down were in 5.88% which has increased to 36.11%. Further it can be seen that other frequencies for the same group have gone down but not as steeply as people professionals who will not opt for any street food. Rather a little increased can be seen in the people who opt for street food once a month increased by 18% in second group of working people who use to opt for street food before lock down has change from 0% to

14.27% working people said they will not eat street food after unlock-3.further it can be seen that other frequencies for the same group for eating once a month have gone up by 100%, twice month has decreased by 11.14% thrice month has decreased by 14.28% more than three times has decreased by 61.54% in third group of student who never use to eat street food before lock down were in 2.53% which has increased to 14.10% a little increased can be seen in the students who opt for street food once a month has increased by 14.28%.twice month has decreased by 24.03% thrice month

has increased by 26.67% more than three times has decreased by 62.02%. Frequency for the group of service professional said they never eat street food before lock down now eats street food after unlock -3 the percentage is 20.66%. Further it can be seen that other frequencies for the same group service professional who use to eat once month has increased from 39.99%. Twice a month has decreased by 67%, thrice a month remained same, more than three times has decreased by 80%. Frequency for the group of house wife remained same for never eating street food and once a month and more than month. Street food for twice a month it increased to 20%, thrice a month it decreased to 20%.

- After COVID-19 Hygiene factor has increased to 21.82%
- After COVID-19 Parcel factor has increased to 37.57
- After COVID-19 Service Time factor has increased to 5.46%
- After COVID-19 Appearance factor has increased to 7.88%
- After COVID-19 Ease of Accessibility remained same at 46.06%
- After COVID-19 Variety factor has increased to 1.21%
- After COVID-19 Taste factor has decreased to 2.42%
- After COVID-19 Cost factor has decreased to 4.85%

Limitations

This study is limited to perception about eating street food before and after unlock. Future scope of this study can be from point of view of street food vendors. This research was conducted within the geographical boundaries of Meerut city. No psychological aspect of choosing street food has been studied.

Suggestions

Street food vendors can give more importance towards Hygiene factor and food safety which will increase the business as well as it will give more assurance to customers while eating and ordering street food. They can advertise more on social media platforms such as Facebook, Meerut eat out about how they are following hygiene standards while preparing and serving food. They can have tie-up with delivery partners like Swiggy and Zomato to reach out to maximum customers, so that social distance norm also will get followed.

Conclusions

Street food is major part of Indian culture, and important aspect of food supply chain, it generates the employment and contributes in formal sector of the economy, due to pandemic people are more cautious about hygiene, as following hygiene and social distancing norm are the key factors to control infection. Due to pandemic every business got affected, and hotel industry was major amongst them as street food vendors got affected worst in hotel industry, but government and NASVI took initiative to bring them back to business by providing them online food delivery platforms such as Swiggy, in association with NASVI and celebrity chef Ranvir Brar hygiene training is given to street food vendors to cope with new normal, and give them confidence as well as assurance for the customers that they will get safe street food to eat. Delivery companies like Swiggy took an initiative to deliver the street food to boost the business.

References

1. Bhowmik SK. Street Vendors in Asia: A Review Growth of Street Vending. *Economic and Political Weekly*;

- c2005. p. 2256-2264.
2. Canet C, N'Diaye C. Street foods in Africa. *Food Nutrition and Agriculture*. 1996;17(18):4-13.
 3. Ceyhun Sezgin A, Şanlıer N. Street food consumption in terms of the food safety and health. *Journal of Human Sciences*. 2016;13(3):4072. <https://doi.org/10.14687/jhs.v13i3.3925>
 4. Chakravarty I, Canet C. Street Foods in Calcutta; c1996. p. 30-37.
 5. Chitlangia R, Times H, Delhi N. Street food vendors to be trained in hygiene, social distancing - Delhi news - Hindustan Times. [Cited 2020 Dec 2]. Available from: <https://www.hindustantimes.com/delhi-news/street-food-vendors-to-be-trained-in-hygiene-social-distancing/story-v1W5XZfuzFLSHKXAFxJyCP.html>
 6. Choudhury M, Mahanta L, Goswami J, Mazumder M, Pegoo B. Socio-economic profile and food safety knowledge and practice of street food vendors in the city of Guwahati, Assam, India. *Food Control*. 2011;22(2):196-203. <https://doi.org/10.1016/j.foodcont.2010.06.020>.
 7. Gadi C, Bala KL, Kumar A. Study of Hygienic practices of street food vendors in Allahabad city, India, and Determination of Critical control points for safe street food. *The Allahabad Farmer*. 2013;58(2):134. <https://doi.org/10.13140/RG.2.2.22360.14080>
 8. Gulankar A. Hit by lockdown, Pune's food joints, trinket shops turn green grocers. *Theedrel.com*; c2020 June 25. <https://thefederal.com/COVID-19/hit-by-lockdown-punes-food-joints-trinket-shops-turn-green-grocers/>
 9. Hanashiro A, Morita M, Matte GR, Matte MH, Torres EAFS. Microbiological important food safety behaviours. *Journal of the American Dietetic Association*. 2005;108:991-997.
 10. Krishnankutty P. Street food vendors are back after COVID safety training, now hoping for business to return. *The Print*; c2020 Jun 21. <https://theprint.in/features/street-food-vendors-are-back-after-COVID-safety-training-now-hoping-for-business-to-return/445694/>
 11. Lima MGB. Street food. In *Alternatives Journal*; c2008. p. 34. <https://doi.org/10.4324/9781315776255>
 12. Mahadevia D, Vyas S, Mishra A. Informal Economy Monitoring Study: Street Vendors in Ahmedabad, India; c2014. Retrieved from www.wiego.org
 13. NASVI. Training given to street vendors to make them aware and ready with COVID-19 safety gears; c2020 Sep 9. Available from: <https://nasvinet.org/training-given-to-street-vendors-to-make-them-aware-and-ready-with-COVID-19-safety-gears/> pib.gov.in. 2020. Street Vendors Act, 2014 Implemented by Respective States/ Union Territories by Framing of Rules and Schemes.
 14. Pilz M, Uma G, Venkatram R. Skill's development in the informal sector in India: The case of street food vendors. *International Review of Education*. 2015;61(2):191-209. <https://doi.org/10.1007/s11159-015-9485-x>
 15. Pilling VK, Brannon LA, Shanklin CW, Howells AD, Roberts KR. Identifying Quality of Selected Street Foods from a Restricted Area of Sao Paulo City, Brazil
 16. Prev IJ, Med S, No V. A Study of the Safety Consumer Perception and consumption of the Street foods sold in Hisar City, Haryana, 2015, 46(1).
 17. Ranka S. How Corona Virus could affect the culture of Eating Special Reference to Street Food: The New Normal. *IOSR Journal of Business and Management*.

- 2020;22(6):1-7.
<https://doi.org/10.9790/487X-2206060107>
18. Reddy AA, Ricart S, Cadman T. Driving factors of food safety standards in India: learning from street-food vendors behavior and attitude. *Food Security*. 2020;12(6):1201-1217. <https://doi.org/10.1007/s12571-020-01048-5>
 19. Sabbithi A, Reddi SGDNL, Naveen Kumar R, Bhaskar V, Subba Rao GM, Rao VS, *et al.* Identifying critical risk practices among street food handlers. *British Food Journal*. 2017;119(2):390-400.
<https://doi.org/10.1108/BFJ-04-2016-0174>
 20. Shenoy S. Food Vendors Get E-Training on Hygiene and Safety Measures. *curlytail.com*; c2020 May 12.
<https://curlytales.com/food-vendors-get-e-training-on-hygiene-and-safety-measures/>
 21. Tambekar D, Kulkarni R, Shirsat S, DG B. Bacteriological quality of street vended food panipuri: A case study of Amravati city (MS) India. *Bioscience Discovery*. 2011;2(3):350-354. Retrieved from biosciencediscovery.com/attachments/File/Vol_2_No_3/Tambekar_63_67.pdf
 22. TNN. Business finally picks up for street food vendors in Pune after lockdown triggered lull. *Times of India*. 2020, November 8.
<https://timesofindia.indiatimes.com/city/pune/business-finally-picks-up-for-street-food-vendors-after-lockdown-triggered-lull/articleshow/79105604.cms>
 23. Waghode SM, WS M, Garode AMG. Pesticides Residues P-Nitrophenol Degrading *Pseudomonas putida* from Cultivated Vegetables Soil Samples of Chikhli Tahsil of Buldana District. *International Journal of Scientific Research*. 2012;2(5):9-10.
<https://doi.org/10.15373/22778179/may2013/4>
 24. WHO. World Health Organization. Coronavirus disease 2019 (COVID-19). Situation Report, 32. 2019(February). (2554); c2020.
 25. Yatmo YA. Street vendors as out of place urban elements. *Journal of Urban Design*. 2008 Oct 1;13(3):387-402.