



A Multidimensional Study Of Street Food Vendors In Mumbai Region

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Abstract

The COVID-19 pandemic has favourable impact on improving public hygiene standards. Like other businesses, street food stall vendors are also positively affected by the pandemic in terms of better hygiene standards. The study reveals that food stalls established post pandemic exhibit improved hygiene practices, in turn contributing public health and reduced disease risk. Another significant outcome from the point of following hygiene practices is positive association between hygiene practices followed by the street food stalls and their revenue further motivating the new entrants to maintain good hygienic practices. Besides, longer duration of the operation of the food stall has also generated higher revenue for the vendors. Consumers' perception of a hygienic street food stall is aligned with the increased revenue for the one following hygienic practices. A successful street food business requires both environmental factors as well as personality traits along with interpersonal skills. Selection of an appropriate location for business with absence of flies, garbage heaps near the selling place, open drainage near the selling place is one of those factors. Sustained efforts and hard work are of paramount importance for a successful business. Building strong interpersonal relationships is critical for trust and loyalty.

Index Terms: Street food stalls, hygiene, revenue, successful entrepreneur, consumers' perception

I. Introduction

With changing social dynamics in urban areas, people are depending on the ready food available outside such as restaurants, take-aways, etc. (Publishing India Group, 2025) Street food is one such economical and easily accessible source of nutrition for many office goers, students and similar.

In the year 2023, food and grocery sector accounted for US\$ 719 billion, of which 93 percent was contributed by unorganised and traditional forms. With over 10 million street vendors, the sector constitutes 11 percent of the urban workforce. (Observer Research Foundation, n.d.) Amid formal sector experiencing a sharp slump in the formal job creation recently, informal food sector plays a crucial role in creating self-employment as a means of livelihood. (Rajora, 24 C.E.)

Despite its economic significance, the informal nature of this food sector raises several challenges. One of the most critical challenges is the sale of unsafe food which approximately leads to 100 million foodborne illnesses and 1,20,000 consequent deaths. (Observer Research Foundation, n.d.) Thus, hygienic practices observed by the street food stall vendors could be one of the critical factors in maintaining urban community health.

Given the growing dependence of the urban population on the street food sector for both food consumption and livelihood opportunities as well as the potential impact of vendors' hygienic practices on community health, it becomes imperative to undertake a systematic study of this sector from multiple dimensions.

II. Literature Review

A cross-sectional study on street food vendors in Gondar city, Northwest Ethiopia (Azanaw et al., 2022) show that around half of street food vendors' food hygiene knowledge and practices were poor. The study shows significant relationships between food safety knowledge and food safety practice and also knowledge and attitude.

According to the research of street vendors in Mumbai are the marginalised self-employed workers in Mumbai. It has been seen from the study that their entire existence and nature of activities are extremely informal and are trust-based. According to him, long working hours, safety issues and exploitation by local authorities together lead to unfavourable working environment for the street vendors. (Saha, 2011)

Thakur et al. (2013), discusses the need of generating government initiatives for generating food and personal hygiene. The study shows how important it is to ensure an effective system of regular health examinations of vendors. It also discusses the need to collect food samples regularly for strict examination from time to time.

Sridharan and Sambasivan (2018) explore the street food vendors in Thiruvannamalai District. The study highlights the factors like working outside, exposure to sun, heavy rains and extreme heat or cold. Unless street

vendors work in markets, most don't have shelter or running water and toilets near their workplace. Inadequate access to clean water is also another big challenge.

According to the study of Mukherjee et al. (2018), the street food vendors were aware of food hygiene and had a favourable attitude towards it, but it wasn't translated in their hygiene practice. The study was done in Kolkata in the surrounding areas of hospitals. The study pointed out the need and attitude of ensuring proper food hygiene.

A study on Socio-Economic Status of the Street Vendors in Mangaluru Taluk by Nidisha N. (2024) examines the social and economic constraints faced by street vendors. According to the study, the informal sector plays a significant role in providing employment and income sources in India. People prefer to work as street vendors since it's an interesting job with little startup costs. However, street vendors are exploited by authorities and have lack of legal protection. They are vulnerable to health risks and safety issues. Many times, they struggle for loans and face paucity of funds for the business.

A Cross-Sectional Study to Assess Street Food Vendors' Adherence to the Bureau of Indian Standards (BIS) in an Urban Slum of Pune, India by Kaushal N, et.al (2025) reflects that providing safe and hygienic street food to consumers is an important aspect of the industry, and various factors interplay in its complex mechanism. In this study, waste disposal, pest control, and lack of training were important factors causing low scores for street food. The study suggests rectifying these factors through municipal bodies and law enforcement departments to provide earmarked locations, training and waste disposal facilities, water and electricity departments and health departments for regular hygiene inspections.

III. Research Methodology:

Data Sources: The present study uses primary data which is collected by using a questionnaire method. 74 respondent street food vendors are selected mainly from various suburbs of Central Mumbai using convenient sampling method. The data was collected in April 2025.

Various scholarly articles and books were reviewed to contextualise and support the study.

Data Analysis: While analysing the data, descriptive method such as averages is used. Inferential statistical methods like correlation, Two Sample Independent T Test, cross tabulation with Chi-Square Test of Association are also used to derive meaningful results. Besides, data visualisation technique 'word cloud' is applied to bring out the key highlights of one of the research parameters.

Objectives of the study:

1. To assess the relationship between hygienic practices of the food stall and daily revenue earned by those stalls
2. To establish relationship between year of establishment of food stalls and hygienic practices followed by the food stall owners especially in the context of COVID19
3. To determine whether timing of the food stall's operation has a significant impact on its daily revenue
4. To identify the significant factors responsible for relatively higher daily revenue of the food stalls
5. To understand consumers' perception of a "hygienic" food stall
6. To explore the street food stall owners' perceptions of the key entrepreneurial qualities necessary for business success

IV. Results and Discussion:

As a preliminary stage of the analysis, profile of the respondents was examined which generated a number of significant observations.

Profile of the respondents:

Gender distribution of respondents shows that 92% of the respondents were males and only 8% respondents were females. Largest proportion of the food stall owners is class 10th pass (37%) while 22% were class 12th passed. A negligible percentage of the respondents are either graduates (5%) or postgraduates (2%). A significant share of the food stall owners who have not done schooling (15%) may indicate less need to acquire formal schooling against the practical skills required for the job along with a possibility of humble economic background of the food stall owner.

Most of the respondents (78%) were the first-generation entrepreneurs. Most of them had selected the location of the business near colleges areas to ensure constant and maximum flow of customers. Nearly 76% of the respondents were running their businesses independently as the owner whereas 15% were found involving only family members into their businesses. 58% of the street food vendors were found running businesses without assistant whereas 42% of them had appointed an assistant for help. 72% of the food stall owners said that their businesses did not require any permits or license. 45% of the street food vendors were found purchasing ingredients from the wholesale markets whereas 34% purchased their ingredients from retail markets. 37% stalls functioned from the afternoon until the evening hours and 21% of the food stalls functioned from morning to afternoon.

1. To assess relationship between hygienic practices of the food stall and daily revenue earned by those stalls

The initial stage of the analysis involved specifying the hygiene criteria and further, classifying the street food stalls into hygienic and unhygienic. Following criteria were used for classification:

- a. No evidence of garbage accumulation, open drainage or flies surrounding the stall;
- b. Although the hand gloves may be absent, there were no visible wounds on the hands of the food handler;
- c. At least one positive personal hygiene indicator was found present;
- d. At least one indicator of acceptable food quality was present.

After applying the designated criteria to the 74 sample street food stalls, 37 were classified as hygienic while the remaining 37 as unhygienic.

Further, average revenue of all the street food stalls was estimated. The results indicated that average revenue of the hygienic stalls was estimated to be Rs. 4953 while that of unhygienic stall was Rs. 2405. A comparison of the averages indicated that the daily average revenue of the unhygienic stalls was nearly 50% lower than the hygienic stalls.

The study formulated and tested the following hypothesis:

H_0 : There is no significant difference between Revenue of Hygienic Stalls and Unhygienic Stalls.

H_1 : There is a significant difference between Revenue of Hygienic

To examine the above hypothesis, a two-sample independent t-Test was employed. The outcomes of the statistical test are summarised in the following table:

Table 1: Association between hygiene and revenue of the street food stall

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
What is the amount of revenue generated every day?	Equal variances assumed	9.455	0.003	-2.209	60	0.015	0.031	-856.197	387.577	-1631.466	-80.927
	Equal variances not assumed			-2.427	55.279	0.009	0.018	-856.197	352.714	-1562.972	-149.421

Source: Field Survey, April 2025

As the p value is less than 0.05, null hypothesis is rejected and thus, can be concluded that there is a significant difference between average revenue of the hygienic and unhygienic food stall.

2. To establish relationship between year of establishment of food stalls and hygienic practices followed by the food stall owners especially in the context of COVID19

As an initial stage of analysis, street food stalls were classified using cross tabulation method into two groups; those established in the pre COVID19 till 2019 and those established in the period (2020 to 2025).

Table 2: Classification of street food stalls based on hygiene

Period of Establishment	Number of Unhygienic Stalls	Number of Hygienic Stalls	TOTAL
Pre COVID	27	22	49
Post COVID	10	15	25
Total	37	37	74

Source: Field Survey, April 2025

From the group of stalls established during pre-pandemic period, 45% street food stalls were hygienic, the picture changes when it comes to the stalls set up from 2020 to 2025. Proportion of hygienic stalls has increased to 60% in this category. It proves that the relatively new establishments have focused on the hygiene factor since the point of their establishment.

The above finding was validated by using a chi-square test of association.

Hypothesis underlying the tests were as follows:

Null hypothesis: There is no association between year of establishment and Hygienic Factors.

Alternative hypothesis: There is an association between year of establishment and Hygienic Factors.

Table 3: Results of Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.510 ^a	1	0.022

Source: Estimations of the data from Field Survey, April 2025

As the p value is less than 0.05, null hypothesis is rejected, proving that there is an association between year of establishment of the street food stall and hygienic factors observed by the street food stall owners.

3. To determine whether timing of the food stall's operation has a significant impact on its daily revenue

Initially, the stalls are categorised according to their operating time after which the average revenue is calculated. Table 4 shows the average revenue earned by the food stall vendors per day.

Table 4: Average revenue per day of the street food stall vendors

Time	Average Revenue per day
Only Morning	998
Morning to Afternoon	2114
Afternoon to Evening	3275
Only Evening	136

Source: Field Survey, April 2025

Street food stalls operating from afternoon to evening have the highest average revenue per day as the consumers for lunch and evening snacks could access the food stall. Revenue of the stalls operating from morning to afternoon mainly attract the consumers for breakfast and lunch.

4. To identify the significant factors responsible for relatively higher daily revenue of the food stalls

Identifying the key factors that contribute to higher daily revenue of the food stalls can provide useful understanding for both high and low performing stall owners. Stalls already generating greater revenue can use these factors more strategically in their favour for further growth, while those with lower average revenue can work on those determinants for improvement. This would increase their potential revenue in future.

Results of correlation between various factors from the questionnaire and the daily average revenue earned by the food stall owners revealed several pertinent findings.

Table 5: Correlation between factors responsible for daily revenue and daily revenue of the street food stall

Factors responsible for daily revenue of the food stall	Correlation Coefficient
Employment of an assistant	0.391
Purchase Location - Wholesale market	0.311
Time - Afternoon to Evening	0.404
Safety Measure - Ensuring good quality ingredients	0.375
Plates Used – Steel	0.303
Plates Used – Plastic	-0.476
Food served with cup / in plates / with ladle	0.456
Food is covered with lid when not served	0.356

Source: Field Survey, April 2025

Factors such as time of the food stall from afternoon to evening and food served with cup/ plates / ladle have come out as the most prominent factors responsible for the higher daily revenue followed by the employment of an assistant. When the food is served with cup / plates / ladle takes care of the hygiene factor of the food along with the lid on the food serving bowl when it is not served ensures a good practice towards hygiene maintenance. Consistent with this observation, stall owners adopting this practice have seen to be earning more revenue than the rest. Having an assistant ensures faster service to the consumers. By buying in the wholesale market expenses on the groceries could be saved, leading to cost effective purchase of groceries. While the food stalls serving food in the steel plate have shown higher revenue those serving in plastic plate have exhibited a lower daily revenue, confirming the inclination of the consumers towards steel over plastic.

5. To understand consumers' perception of a "hygienic" food stall

Consumers' decision to purchase food from a street food stall is directly influenced by their idea of a hygienic stall. Thus, with greater hygiene followed by the food stalls there is a higher consumers' preference for those stalls resulting in greater revenue generation.

Table 6: Consumers' perception of a 'hygienic' street food stall

Indicative factors of hygienic street food stalls	Hygienic Stall
No Flies	0.66
No garbage heaps near the selling place	0.64
No open drainage near the selling place	0.44
If hand gloves are absent, no wounds on the hands	0.44
No dust	0.44
Food safety measure – hygiene	0.39
No running nose	0.36
No lice infestation in hair	0.33
No cough	0.33
Container – steel	0.31
Food served with cup / plates / ladle	0.26
Trimmed nails by the vendor	0.24
Food safety measure - method of cooking	0.24
Food is covered with lid when not served	0.24
Clean clothes	0.23
No conjunctivitis / discharge from eyes	0.23
No vehicular pollution	0.23
Use of plate – paper	0.21

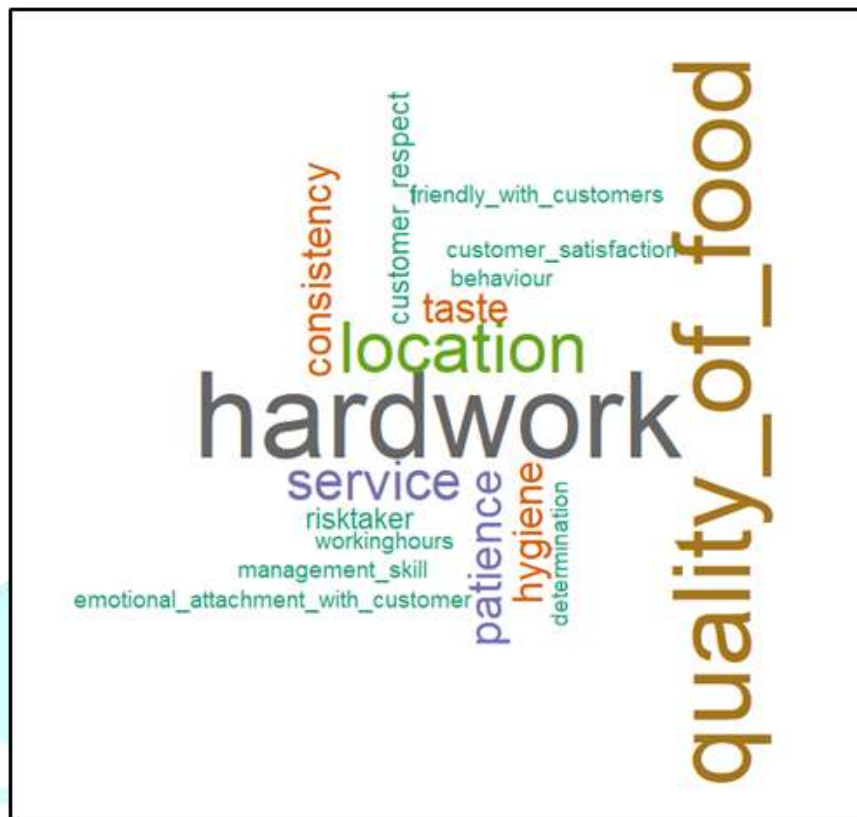
Source: Field Survey, April 2025

Consumers' perception of a hygienic street food stall is largely influenced by visible environmental cues. Key indicators among them include the absence of flies and the lack of garbage heaps around the stall. In addition, consumers also evaluate the personal hygiene of the vendor. They mainly emphasise on the observable signs such as absence of running nose or cough, no lice infestation in hair. Use of paper plates is ranked the lowest in importance among the hygiene- related cues considered by the consumers.

6. To explore the street food stall owners' perceptions of the key entrepreneurial qualities necessary for business success

Figure 1 reveals key attributes identified as essential for the success of street food entrepreneurs. Visibility of each word reflects its relative importance as perceived by the street food vendors. Hard work emerges as the most important attribute for a successful business. Quality of food also appears as a very significant attribute thus underlining consumers preference to taste, food safety and hygiene. Location, service and hygiene have also emerged as the other notable attributes. Personality traits such as patience, management skills risk taking ability and working hours seem to be significant for being a successful entrepreneur. Interpersonal skills such as being friendly with the customers, demonstrating respect and building emotional attachment also will enhance the possibility of success.

Figure 1 – Perceived essential qualities of a successful entrepreneur



Source: Field Survey, April 2025

V. Conclusion and Recommendations

The COVID19 pandemic induced substantial changes in the hygiene standards of all the sections of society. Street food vendors are no exception. Notably, hygiene standards of the street food vendors who set up their food stalls post pandemic have improved favourably to the public health contributing to reduced disease risk and community well-being.

Similarly, the pandemic has created a shift in the consumers' choices leading to a greater emphasis on hygiene in everyday community settings. The change is evident in the street food sector as well. Findings of this study indicate that street food stalls adhering to the higher hygienic standards earn greater revenue than those that do not. This brings forth hygiene as one of the significant determinants of revenue among the street food vendors. Thus, the new entrants to this sector are more likely to achieve higher revenue if they adopt and maintain hygienic practices.

The study reveals that one of the factors is time of operation. New entrants to the sector should keep the stall open for a longer duration to cater to the needs of consumers of multiple meals (either breakfast and lunch or lunch and evening snacks).

Strong association between hygiene practices of the street food stall and their daily revenue is established in the study. Further, insights into consumers' perception of hygiene would bring clearer understanding of their expectations from a street food stall. Consequently, if both, the existing stalls owners and the new entrants integrate these ideas of hygiene in their daily operations it would help them attract consumers and in turn, increase revenue.

Selection of an appropriate location for business where there is absence of flies, garbage heaps near the selling place, open drainage near the selling place is the first step to the successful street food business. Along with hygiene in the surroundings, personal hygiene of the food stall owner is equally important. Vendors are advised to wear hand gloves while preparing and serving food and in case, if the gloves are not used, there should not be wounds on their hands ensuring food safety. Similarly, vendors should avoid working while experiencing cough, cold, running nose, conjunctivitis and discharge from the eyes as these conditions may negatively influence consumers through visible cues to hygiene. A presentable appearance of the food stall vendors including clean clothes and trimmed nails serves as the indicator of personal hygiene and cleanliness, in turn building consumers' confidence in the food stall and thus, boosting their business.

Being a successful entrepreneur requires a gamut of personal traits as well as operational and interpersonal skills. Sustained efforts and perseverance in entrepreneurial performance play a central role as hard work is emerged as the key attribute. From the consumers' perspective, quality of food appears as a highly influential factor highlighting customers priority to taste, safety and overall product excellence. Apart from these factors, for improving business viability selecting appropriate location, service and hygiene is essential. Customers will trust the street food stall only through provision of good service and hygiene ensuring cleanliness and food safety. Personality characteristics such as patience, consistency, management skills, risk taking ability and working hours reflect those traits that support long term sustainability. Interpersonal qualities are no less important. Traits like friendly with customers, demonstrating respect and building emotional attachment suggest that relationship building is very essential for the success of the street food stall.

VI. Limitations

The study is limited to the street food stall vendors of the central suburbs of Mumbai. Hence generalisation to a larger population is warranted.

VII. Future Scope

More studies with a broader sample spanning to various regions and cities can be undertaken. There is also a possibility of conducting comparative studies across different regions.

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