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## **Research Paper**

# Study on livelihood of street food vendors

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**Abstract :** The street food being an informal food supply system provided livelihood and substantial amount of household income to the middle and low income urban population, who would otherwise be unemployed or under employed. Street foods play an important role in achieving food and nutritional security of the poor income groups, who would otherwise be insecure owing to the cost, accessibility and affordability of food. The present study was carried out with a view to analyze the overall performance of street food vendors in Coimbatore city of Tamil Nadu. The study was undertaken to analyze both the positive and negative effects of street food vending. The conventional and percentage analysis were carried out to draw meaningful inferences. The multiple linear regression was used to analyse the sales revenue of street food vendor.

Key Words : Street food vendors, Street food consumers, Livelihood, Regression, Employment, Affordability

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## **INTRODUCTION**

Street Food Vending plays an important socioeconomic role in today's India and it provides jobs for many low income families. Besides employment generation, the reasons for the growing popularity of street food vending are its easy accessibility with variety in taste, low cost, freshness and often nutritious. It also provides a social support system for the under privileged urban population.

Street foods are perceived to be a major contributory factor, as in most instances, food is prepared in unsanitary conditions by people not trained in proper food handling techniques (WHO, 1984). A street food vendor is a person who offered goods or services for sale to the public without having a permanent built up structure but with a temporary static structure of mobile stall or head load. The stationary vendors, who sold their wares from small stalls, kiosks, pushcarts and so forth were the predominant type in most of the countries. Most vendors operated from selected strategic locations, including bus and train stations, markets and shopping areas, commercial districts, outside schools and hospitals, residential suburbs, factories, and construction sites (Powell *et al.*, 1990). The food vendors in informal sector had been distinct from their official brethrenonly because their work statuses were more unstable, more vulnerable and illegalWickware (1998).

A vast majority of low income group (*viz.*, daily wage earners) depend on roadside eatery. The income and time constraints prevent them to reduce the

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importance of health and hygienic aspects of street foods. The working bachelors who are away from family depend on roadside eateries, which are located nearby their working yard for the food needs. Street food vendors also face the problem from law enforcement authorities and they are under constant pressure throughout their business hours. The foregoing discussion clearly underlines the need to address the very important and critical issues of street food vendings. Considering the above critical issues in mind, a study was proposed to understand the informal food sector and its role in attaining the food and nutritional security of the poor in the economy.

#### **Objective:**

The main objectives of the study were

- To study the nature and type of street food vending operations carried out in urban areas.

- To analyze the demographic, economic and social dimensions of the street food vending,

 To study the factors influencing sales revenue of the vendor

## MATERIAL AND METHODS

#### **Coverage** :

The study on informal street food vending comprises of analyzing the socio-economic status of the street food vendors. The study was conducted in Coimbatore *viz.*, the metropolitan city of Tamil Nadu. The city was purposively selected because the consumption of food outside the home is more frequent and street food vending is more common and found abundantly in this city. For the study, 50 street food vendors were contacted through personal field survey. The street food vendors were post stratified based on the type of vending *i.e.*, mobile and stationary vending, gender, income etc.

#### Data source:

Both primary and secondary data were collected to achieve the study objectives. Primary data related to characteristics of respondent's business activities, sales revenue from food vending business and factors affecting performance of informal food vending activities were collected from the target group. The secondary data from different sources such as government offices and institutions like Food Safety and Standards Authority of India (FSSAI) were collected and then used to complement the information obtained from the sample respondents through primary field survey.

## Data collection :

The data were collected directly from the street vendors through structured interview/questionnaire method. The primary data of the respondents were collected and their socio-economic characteristics analyzed through various methods.

A descriptive survey design was used to answer questions concerning the current status of food hygiene and sanitation practiced by vendors of street foods. Hygiene and sanitation were determined by the use of structured interview and through personal observations. Practices such as acquisition of place of preparation, environmental conditions, methods of washing utensils and preservation of raw materials were studied. Location of the street vendor, serving mode, environment cleanliness of the street food vendors, general processing of the food and hygienic practices were also observed and recorded through an observation checklist.

#### Sample size and sampling procedure :

The target population for this study was food vendors engaged on informal activities. As indicated already it is from this population that a grand total of 50 respondents were sampled to represent the entire food vendors in Coimbatore city. Random sampling technique was used to select street vendors from the list of food vendors available in the study area. The choice of the streets was based on the availability of the informal activities related to food. In every street, register containing list of vendors obtained from FSSAI was used as a sampling frame and from the registers names of food vendors were drawn randomly in order to obtain a fair representation of the population under observation.

### Data processing and tools of analysis:

Various attributes that were collected during survey were analysed through conventional and functional tools of analysis.

## Conventional analysis :

The conventional analyses was the percentage analyses carried out for vendors in different classifications based on age, education, household income, employment, gender, expenditure, nature of vending, duration of business operation etc.

## Income group :

Based on the monthly household income, the vendors had been post stratified into low, middle and high income group. If the households had an income of less than Rs.20, 000/- per month then they were classified as low income group and the households having the income of Rs.20, 001 to 40,000/- per month were categorized as middle income group and if the monthly household income was more than Rs.40,000/- then they were considered as high income group.

### Functional analysis :

The collected data were analyzed by using the following tools of analysis.

## Analyses of Vendor's sales revenue from street food vending :

A regression equation was designed to explain sales revenue of street food vendors with age, years of formal education, experience, initial capital, type of vending, consumer base of the vending, duration of work etc. The model used was of the following form

$$\begin{split} \mathbf{Y} &= \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 \mathbf{X}_1 + \boldsymbol{\beta}_2 \mathbf{X}_2 + \boldsymbol{\beta}_3 \mathbf{X}_3 + \boldsymbol{\beta}_4 \mathbf{X}_4 + \boldsymbol{\beta}_5 \mathbf{X}_5 + \boldsymbol{\beta}_6 \mathbf{X}_6 + \boldsymbol{\beta}_7 \mathbf{X}_7 + \boldsymbol{\beta}_8 \mathbf{X}_8 + \mathbf{u}_i \\ \text{where,} \end{split}$$

Y = The sales revenue (Rs/Month)

 $\beta_0$  = Intercept

 $X_1 = Age$  (Number of years)  $X_2 = Education$  (Number of years)

 $X_{3}^{2}$  = Experience in street food vending (Number of years)

 $X_{4}$  = Arrival of consumers (in numbers / Month)

 $X_s =$  Proximity of vending site from the nearby enterprise/ firm (in kilometers)

 $X_6$  = Working capital expenses (Rs./Month)

 $X_7 =$  Amount invested in business (Rs./Month)

 $u_1 = \text{Error term and}$ 

 $\beta_{1...}, \beta_8$  are co-efficients of explanatory variables.

## **Expected relationship:**

It was expected that the independent variables such as age, education, experience, arrival of consumers to the street food vending, working capital expenditure on street food vending, amount incurred in businesswould have significant relationship to the sales revenue of street food vending and hence, they were included in the model.

## **RESULTS AND DISCUSSION**

The study addresses the major issues of the informal

food vending viz., the nature of street food vendingand their socio-economic profile. The results of the study are presented in sections as indicated below.

## General characteristics of street food vendors: Age:

The result furnished in Fig. 1 indicated that 48 per cent of the respondents were in the age group of 20 - 40 years, 40 per cent of the respondents in the age group of 41-60 years of age and only 12 per cent of the respondents were more than 60 years of age. It could be finally concluded that majority of the street food vendors were in the age group of 20-40 years of age.





#### **Educational status :**

Education is one of the important and basic inputs for human welfare and existence. It could be inferred from the Table 1 that no one in the sample had college level education. Nearly 68 per cent of the vendors had primary education while 20 per cent of them were illiterates and only 12 per cent of the vendors had secondary education. The result clearly showed that many of the vendors did not have adequate level of education due to poor economic conditions.

Table 1 : Educational status				
Sr. No.	Educational qualification	Total	Percentage	
1.	Illiterate	10	20.00	
2.	Primary	34	68.00	
3.	Secondary	6	12.00	
4.	Degree	-	-	
	Total	50	100.00	

## **Experience** :

Just like any other activity, experience in street food vending also expected to provideenhanced vending efficiency. The long years of experience in street food

Table 2 : Experience				
Sr. No.	Experience (in years)	Total	Percentage	
1.	Less than 20	26	52.00	
2.	21-30	3	6.00	
3.	More than 30	21	42.00	
	Total	50	100.00	

vending would improve the vending operations successfully. The results of the experience of vendors in street food vending are reported in Table 2 The results showed that 52 per cent of vendors had the vending experience of less than 20 years while about 42 per cent had the experience of 31-40 years and only six per cent of the vendors had the vending experience of more than 30 years. The overall results indicated that majority of the vendors had the experience of 10-20 years.

## Gender :

It could be inferred from the Table 3 that 56 per cent of the vendors were male, 24 per cent of vending operation were jointly carried out by both male and female partners and only the remaining vendors (20 %) were female. The result showed that street food vending is highly dominated by males, even though the contribution of women members of the family was reported to be significant.

Table 3 : Gender				
Sr. No.	Gender	Total	Percentage	
1.	Male	28	56.00	
2.	Female	10	20.00	
3.	Both	12	24.00	
	Total	50	100.00	

#### Marital status :

It could be furnished from the Table 4 that 94 per cent of street food vendors were married and only six per cent of the vendors unmarried. From the result, it could be easily identified that majority of street food vendors were married.

Table 4 : Marital status				
Sr. No.	Marital status	Total	Percentage	
1.	Married	47	94.00	
2.	Unmarried	3	6.00	
	Total	50	100.00	

## **Type of family :**

It could be explained from the Table 5 that 66 per

cent of vendor's family were nuclear in nature while the remaining represented by joint family system. The type of family plays an important role in contributing labour to the family business like street food vending and household family expenditure. It could be concluded that majority of vendors had nuclear family, showing the disintegration of joint family system in the economy.

Table 5 : Type of family				
Sr. No.	Type of family	Total	Percentage	
1.	Nuclear	33	66.00	
2.	Joint	17	34.00	
	Total	50	100.00	

## Type of house :

The results reported in Table 6 showed that about 72 per cent of street food vendors lived in semi-pucca type house whereas 20 per cent of vendors had pucca type of house and only eight per cent of the vendors possessed kutcha house. It is obvious that majority of the street food vendors lived in semi-pucca type of dwellings.

Table 6 : Type of house				
Sr. No.	Type of House	Total	Percentage	
1.	Pucca	10	20.00	
2.	Semi-pucca	36	72.00	
3.	Kutcha	4	8.00	
	Total	50	100.00	

**Note: Pucca**-is one which have walls and roof made of burned brick, stones, cement concrete and roof material with galvanized corrugated iron sheet.

**Semi-pucca**-A house that have hut fixed made of pucca materials but roof Is of materials other than those used for pucca.

Kutcha- Walls on roof made of materials other than unburned bricks, bamboo, mud, grass, reeds, loosely packed stones.

## Nature of vending :

It is obvious from Table 7 that a vast majority (20%) of vendors sold only dinner while 16 per cent sold only snacks items and 12 per cent prepared only lunch. Another 12 per cent of them involved only fast food items and 10 per cent of them traded only breakfast items.

## Usage of leftover food :

It could be understood from the Table 8 that about 88 per cent of the vendors used leftover food for their household consumption and the remaining vendors reported that they never had left over food.

Table 7 : Nature of vending				
Sr. No.	Particulars	Total	Percentage	
1.	Breakfast	5	10.00	
2.	Lunch	6	12.00	
3.	Snacks	8	16.00	
4.	Dinner	10	20.00	
5.	Breakfast and lunch	4	8.00	
6.	Breakfast and snacks	1	2.00	
7.	Breakfast and dinner	2	4.00	
8.	Breakfast, lunch and dinner	2	4.00	
9.	Lunch and snacks	4	8.00	
10.	Lunch and dinner	1	2.00	
11.	Dinner and snacks	1	2.00	
12.	Fast food	6	12.00	
	Total	50	100.00	

Table 8 : Usage of leftover food				
Sr. No.	Туре	Total	Percentage	
1	Own consumption	44	88.00	
2.	No leftover food	6	12.00	
	Total	50	100.00	

#### Type of oil used :

It could be inferred from the Table 9 that 64 per cent of the vendors used palm oil for food preparation while 32 per cent used refined like groundnut oil, gingelly oil and sunflower oil. Only an insignificant proportion of traders used both the oils.

Table 9 : Type of oil used				
Sr. No.	Type of oil used	Total	Percentage	
1.	Refined oil (Groundnut oil,	16	32.00	
	gingelly oil, sunflower oil)			
2.	Palmoil	32	64.00	
3.	Both refined and palm oil	2	4.00	
	Total	50	100.00	

#### Usage of left over oil :

The Table 10 reported that 46 per cent of vendors used left over oil for household self consumption, while

Table 10 : Usage of left over oil			
Sr. No.	Usage	Total	Percentage
1.	Self consumption	23	46.00
2.	Reuse in subsequent days	15	30.00
3.	No left over oil	12	24.00
	Total	50	100.00

30 per cent reused the left over oil for subsequent preparations. It is interesting to note that 24 per cent did not have any leftover oil and they used the oil in correct quantity.

## **Duration of operation :**

It could be revealed from the Table 11 that 64 per cent of the vendors operated their business for 5 to 10 hours a day, 28 per cent of them less than five hours a day and only eight per cent carried out their business for more than 10 hours a day. If the duration of business was more their income was also expected to be more.

Table 11 : Duration of operation				
Sr. No.	Duration (Hrs / day)	Total	Percentage	
1.	Less than 5	14	28.00	
2.	5 to 10	32	64.00	
3.	More than 10	4	8.00	
	Total	50	100.00	

## Source of water for preparation of food :

It could be interpreted from the Table 12 that 86 per cent of the vendors used tap water for preparing food, eight per cent of them used both tap water and well water while there maining used only well water for food preparation. Since the tap water is not pure, there is every possibility that the uncooked food stuffs prepared using tap water directly (without boiling) may get contaminated.

Table 12 : Source of water for preparing food			
Sr. No.	Source	Total	Percentage
1.	Tap water	43	86.00
2.	Well water	3	6.00
3.	Tap+ well water	4	8.00
	Total	50	100.00

#### Source of drinking water :

From the Table 13, the source of drinking water supplied by the street food consumers could be

Table 13 : Source of drinking water				
Sr. No.	Source	Total	Percentage	
1.	Tap water	35	70.00	
2.	Well water	2	4.00	
3.	Mineral water	8	16.00	
4.	Tap, well and mineral water	5	10.00	
	Total	50	100.00	

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understood. It is obvious from the result that 70 per cent of the vendors used tap water as a source of drinking water and 16 per cent supplied mineral water (purchased in 2 liter cans) and only four per cent offered well water for drinking. The supply of mineral water is done based on the request made by the consumers and the mineral water is charged extra by the vendors.

## Household income :

The analysis of income in general explains the living status of the vendors and hence the distribution of the sample among the four major income categories was done. It could be interpreted from the Table 14 that about 56 per cent of vendor's belonged to the low income group and their average family size was 4.4, where as 30 per cent of them were middle income group with average family size of 4.2. Only 14 per cent of the vendor's average family size was 4.1 and they belonged to high income group. It could be concluded that majority of the vendors belonged to low income group, earning less than Rs. 20, 000/month.

Average family size (in numbers)
4.4
4.2
4.1
0 4.23

## **Factors influencing sales revenue of the vendor:** Sales revenue :

The sales revenue of street food vendors was expected to have influence on age, education, experience, arrival of consumers, proximity of street food vending site, input cost etc. Hence sales revenue was regressed with the said independent variables to know the extent of influence of the listed variables on sales revenue. The results obtained are reported in Table 15.

It could be highlighted from the Table 15 that 56 per cent of the variation in the sales revenue was due to the influence of independent variables used in the analysis. Statistically significant results were obtained for two of the variables such as experience in street food vending operation and total input cost. It could be observed from the table that one year increase in experience of street food vending operation would increase the sales revenue by Rs.1959 per month, *ceteris paribus* while one rupee increase in total input cost used of street food vending would positively increase the sales revenue to Rs. 0.98 per month by keeping the remaining variables at constant. The result concluded that age, proximity, education did not showed significant impact on sales revenue.

## **Conclusion :**

The study aimed to analyze the nature and type of street food vending in Coimbatore city. The street food being an informal food supply system provided employment and substantial amount of household income to the middle and lower category people of the population, who would otherwise be unemployed or under employed. Street foods play an important role in achieving food and nutritional security of the poor income groups, who would otherwise be insecure owing to the cost, accessibility and affordability. Hence, the study of socio-economic characteristics of the consumers of the street food helped us to understand the consumer base of this informal system. The overall objective of the study was to analyze the socio-economic profile of the street food vendors. The conventional and percentage analysis were carried out to draw meaningful inferences.

It is obvious that majority of the street food vendors

Sr. No.	Variables	Co-efficients	"t" value
1.	Intercept	49622.72	1.09
2.	Age (in years)	-1609.54	-2.15
3.	Education (in years)	871.84	0.42
4.	Experience in vending operation (in years)	1959.41	2.33**
5.	Amount incurred in business (Rs.)	0.07	0.34
6.	Arrival of consumers per day	216.28	0.91
7.	Proximity of street food vending site to the nearby firms	-1 56.98	-0.05
8.	Amount invested in business	0.98	5.43*

R<sup>2</sup> value= 0.56. \* and \*\* indicate significance of values at P=0.05 and 0.01, respectively

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were in the age group of 20-40 years of age and many of the vendors did not have adequate level of education due to poor economic conditions. The vendors had the adequate experience of 10-20 years and are highly dominated by males, even though the contribution of women members of the family in the preparation of food stuffs was reported to be significant.

Majority of street food vendors were married and involving family members for various operations related to street food vending andhad a nuclear family. Most of the street food vendors lived in semi-pucca houses. It was estimated that a vast majority (20%) of vendors sold only dinner. The vendors used leftover food for their household consumption and remaining vendors reported that they did not have left over food and used palm oil for food preparation of food. From the study itwas revealed that many of the vendors operated their business for 5 to 10 hours a day. In the study area,majority of the vendors used tap water for preparing food and most of the vendors belong to the low income groups.

The sales revenue of street food vendors was expected to have influence on age, education, experience, amount incurred in business, arrival of consumers, proximity of street food vending site, input cost etc. It could be highlighted that 56 per cent of the variation in sales revenue was due to the influence of independent variables used in the analysis. Statistically significant results were obtained for two of the variables such as experience in street food vending operation and total input cost. It could be interpreted that one year increase in experience of street food vending operation would increase the sales revenue by Rs.1959 per month, *ceteris paribus* while one rupee increase in total amount invested in business would positively increase the sales revenue by Rs. 0.98 per month by keeping the remaining variables at constant.

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