



A Data-Driven Approach to Strengthening the Sustainability and Business Growth of Street Food Vendors in Urban Patna

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ABSTRACT

This research applies analytical methods to examine the economic and social importance of street food vendors operating in Patna, while exploring how their day-to-day operations shape decision-making within the informal business landscape. Findings reveal that vending offers consistent earning potential, fosters small-scale job creation, and contributes meaningfully to the city's after-hours commercial activity, especially in areas with high pedestrian traffic. The profile of vendors largely composed of migrants from rural backgrounds with modest educational attainment underscores the sector's contribution to grassroots entrepreneurship, neighborhood-level food availability, and supply networks linking urban markets to rural producers. Quantitative findings demonstrate meaningful associations among educational background, earnings, and employment generation. The study advocates for designated vending areas, upgraded sanitation infrastructure, access to small-scale credit, and adoption of digital payment systems as measures to enhance long-term viability and operational effectiveness.

KEY WORDS

Street Food Vendors, Informal Economy, Evening Economy, Employment Generation, Micro-Entrepreneurship, Food Security.

INTRODUCTION

Street food vending has become an integral part of the informal economy and a vibrant element of urban livelihood across India. It serves as both an income-generating activity and a reflection of cultural diversity,

particularly in developing cities where formal employment opportunities remain limited. In Patna, this sector plays a vital role in providing low-cost, ready-to-eat meals to thousands of residents every day while simultaneously supporting the livelihoods of migrants, women, and small entrepreneurs. The growth of urban population and rapid commercialization have increased the demand for quick, affordable food, leading to the expansion of vending clusters across Gandhi Maidan, Boring Road, Ashok Rajpath, Kankarbagh, Mithapur, and the newly developed Marine Drive, where hundreds of stalls illuminate the evenings and sustain Patna's "evening economy." This micro-enterprise network not only circulates income within local communities but also links the urban economy with rural suppliers, transporters, and service providers. Despite their economic contribution, vendors frequently face issues such as eviction drives, lack of sanitation facilities, limited access to credit, and absence of legal recognition. Therefore, the present study seeks to analyze how street food vending contributes to Patna's urban economic development, focusing on employment creation, income generation, and the challenges hindering its formal integration into the city's development framework.

Significance of the Study

- **Economic Contribution:** Street food vending plays a vital role in Patna's informal economy by providing income opportunities for thousands of individuals, particularly those excluded from formal employment.
- **Employment Generation:** The sector supports self-employment and micro-entrepreneurship, especially among youth and women, thereby reducing urban poverty.
- **Food Accessibility:** Vendors ensure the availability of affordable, ready-to-eat meals for city residents, addressing the food needs of low-income and working populations.
- **Cultural and Social Importance:** It helps preserve local culinary traditions and strengthens the social fabric by creating inclusive community spaces such as Patna's vibrant "evening economy."

Review of Literature

Street food vending has attracted the attention of several Indian researchers who have explored its growing role in urban employment and local development. **Ranjan (2015)** in his study on informal workers in Patna highlighted that street food vending is one of the most stable sources of income for low-income families and migrant workers. His research showed that this activity not only ensures daily earnings but also promotes food accessibility for students, office workers, and travellers across the city. Likewise, **Singh and Jha (2020)** examined the contribution of small vendors to the urban economy of Bihar and found that vending hubs such as Gandhi Maidan, Kankarbagh, Boring Road, and Marine Drive have become crucial centers of the evening economy. They emphasized that despite their contribution to employment and self-reliance, most vendors still face issues related to hygiene, credit access, and lack of official recognition. Both studies underline the importance of street food vending as a micro-enterprise model that supports Patna's economic growth while offering opportunities for inclusive urban development.

Research Gap

Although several studies have examined the informal sector and street vending in India, very few have focused specifically on the economic contribution of street food vendors in urban Bihar, particularly in Patna city. Earlier works by **Ranjan (2015)** and **Singh & Jha (2020)** discussed vending as a livelihood option but did not explore its measurable impact on urban economic development, employment generation, and the emerging evening economy around areas like Marine Drive, Gandhi Maidan, and Kankarbagh. There remains a gap in understanding how this informal food sector contributes to the city's overall growth, income circulation, and cultural economy. Hence, the present study seeks to fill this gap by providing empirical evidence on the socio-economic profile, challenges, and developmental role of street food vendors in the urban economy of Patna.

Research Questions

1. What are the key socio-economic characteristics of street food vendors operating in various zones of urban Patna?
2. How does street food vending contribute to employment generation and income creation within the city?
3. What policy measures can effectively integrate street food vending into Patna's formal urban development framework to promote inclusive growth?

Objectives of the Study

1. To examine the socio-economic profile of street food vendors operating in different zones of Urban Patna.
2. To analyze the contribution of street-food vending to employment generation and income creation in the city.
3. To suggest practical policy measures for integrating street-food vending into Patna's formal urban-development framework for inclusive growth.

Hypotheses

Null Hypothesis (H_0): Street food vending has no significant impact on the economic development of Urban Patna.

Alternative Hypothesis (H_{01}): Street food vending significantly contributes to the economic development of Urban Patna.

Research Methodology

The present study is descriptive and analytical in nature, designed to evaluate the economic and social contribution of street food vendors in the urban areas of Patna. Both primary and secondary data were collected to gain a comprehensive understanding of the sector's role in employment generation, income creation, and urban development.

Research Design

The study follows a descriptive research design, focusing on analysing real-life conditions of street food vendors through field data and observation.

Study Area

The research was conducted in Urban Patna, covering major vending zones such as Gandhi Maidan, Boring Road, Ashok Rajpath, Kankarbagh, Mithapur, and Marine Drive, which is emerging as the most active evening food market.

Sample Size

A total of 200 street food vendors were selected for the survey to represent various food categories and localities.

Sampling Technique

The study employed a stratified random sampling method to ensure inclusion of vendors from diverse backgrounds and different vending locations.

Data Sources

Primary Data: Collected through structured questionnaires, field interviews, and on-site observations.

Secondary Data: Obtained from reports of the Patna Municipal Corporation, ILO, academic journals, books, and Government publications.

Tools and Techniques for Analysis

The data were analyzed using percentage analysis, correlation method, chi-square test, and graphical representation through SPSS software and MS Excel.

Reliability Test

To ensure reliability, a pilot study was conducted on vendors before the final survey, and Cronbach's Alpha was applied to test the internal consistency of the questionnaire.

Table 1: Reliability Statistics

Cronbach's Alpha	No. of Items
.934	3

(Source: SPSS)

All 200 responses obtained through the structured questionnaire were found valid and suitable for analysis, with no missing or excluded cases. This ensured data completeness and uniformity, thereby strengthening the reliability of the statistical findings. The reliability test yielded a Cronbach's Alpha value of 0.934 across the three key constructs Education Qualification (EQ), Employment Generation (EG), and Income Generation (IG). The high coefficient value indicates excellent internal consistency, confirming that the research instrument used to assess the socio-economic impact of street food vending in urban Patna was both reliable and appropriate for advanced statistical analysis.

Ethical Considerations

The study maintained full confidentiality of respondents, ensured voluntary participation, and avoided any form of bias or misrepresentation.

Socio-Economic Profile of Street Food Vendors in Urban Patna

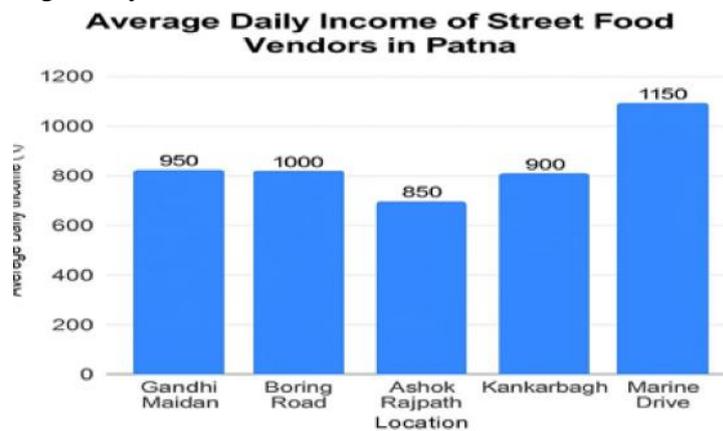
- Street food vending in Urban Patna has become an essential livelihood activity, deeply linked to the city's informal economy. Most vendors belong to low-income groups, operating with limited capital but high determination. A large section of them are rural migrants from districts like Vaishali, Samastipur, Muzaffarpur, and Saran, who moved to Patna in search of better earning opportunities. The most active vending hubs include Gandhi Maidan, Boring Road, Kankarbagh, Mithapur, Ashok Rajpath, and Marine Drive, which has become the heart of Patna's evening food economy.
- The socio-economic analysis shows that male vendors dominate the sector, though a small but growing number of women are now managing tea, snacks, and homemade food stalls. Education levels remain low, but practical business skills, hard work, and customer relationships ensure economic survival. Marine Drive vendors experience the highest evening footfall and daily earnings due to its scenic location and tourist attraction.

Table 2: Demographic and Economic Profile of Street Food Vendors in Urban Patna (N = 200)

Variables	Categories
Gender	Male – 78% ; Female – 22%
Age Group	18–30 (28%), 31–45 (46%), 46–60 (26%)
Education Level	Below Matric – 54%, Intermediate – 34%, Graduate – 12%
Type of Food Sold	Litti-Chokha (30%), Chaat/Samosa (25%), Tea/Coffee (20%), Chinese Fast Food (15%), Others (10%)
Average Daily Income (Rs.)	Below 500 – 20%, 500–1000 – 48%, Above 1000 – 32%
Years in Vending Profession	Less than 2 years – 18%, 2–5 years – 44%, Above 5 years – 38%

(Source: Primary Field Survey, 2025)

Graph 1: Average Daily Income of Street Food Vendors in Different Locations of Patna



(Source: Field Data Compiled, 2025)

Description: This bar chart (to be inserted) compares the average daily income of street food vendors across five major locations in Patna. Marine Drive shows the highest income level due to heavy evening customer turnout and growing food tourism.

Interpretation: The graphical analysis shows that Marine Drive vendors earn the highest average income (₹ 1150/day), followed by Boring Road (₹ 1000/day) and Gandhi Maidan (₹ 950/day). These areas attract large crowds during evening hours, which enhances sales. Ashok Rajpath and Kankarbagh, though economically active, have comparatively lower incomes because of limited evening traffic. Overall, the graph reflects how the evening economy, especially around Marine Drive, has become a significant contributor to Patna's informal urban growth.

Theoretical Foundation

The present study is based on the conceptual understanding of the informal economy and its relationship with urban economic development. Theoretical foundations are drawn from three key economic models that explain how small-scale self-employment contributes to inclusive growth.

- 1. Informal Sector Theory (ILO, 1972):** This theory emphasizes that informal employment activities, such as street vending, play a crucial role in providing income and livelihood to the poor in developing countries. It recognizes vending as a survival strategy and an integral part of urban life that supports both producers and consumers.
- 2. Lewis Dual-Sector Model (1954):** According to W. Arthur Lewis, the economy consists of two sectors the traditional (informal) and the modern (formal). As the formal sector cannot absorb all labor, surplus workers engage in informal activities like street food vending. This helps balance unemployment and stimulates income generation at the grassroots level.
- 3. Urban Livelihood Framework (UNDP, 1998):** This framework focuses on how urban poor sustain themselves through diverse livelihood strategies, including self-employment. In Patna's context, street vendors along Marine Drive and Boring Road exemplify urban adaptability and resilience by transforming public spaces into microeconomic centres.

Together, these theories form the conceptual base of this study, linking informal entrepreneurship to urban economic growth and socio-cultural sustainability.

Scope and Limitations of the Study

The present study primarily focuses on understanding the economic and social significance of street food vending within Urban Patna, including key vending zones such as Gandhi Maidan, Boring Road, Kankarbagh, Mithapur, Ashok Rajpath, and Marine Drive, which together represent the city's informal food

network. The scope of the research covers the period from 2015 to 2025, capturing the recent trends in urbanization, employment diversification, and the rise of the evening economy. The study includes 200 vendors, selected through stratified random sampling, representing a cross-section of Patna’s vending population. It emphasizes socio-economic variables such as gender, education, income, years of experience, and type of food sold.

However, the study is limited by several factors. Since the data were collected from a selected group of vendors, the findings may not fully represent the entire vending community across Bihar. The study also faced constraints of time, varying literacy levels of respondents, and limited secondary data from municipal sources. Despite these limitations, the research provides valuable insight into the contribution of street food vendors to Patna’s informal economy, offering a strong foundation for future studies and policy frameworks.

Data Analysis and Interpretation

The data collected from 200 street food vendors across Urban Patna were analysed to examine their contribution to income generation, employment creation, and economic sustainability. The analysis covers diverse vending zones such as Gandhi Maidan, Kankarbagh, Boring Road, Mithapur, and Marine Drive. The findings reveal that street food vending has become a vital source of livelihood, especially for rural migrants and unskilled workers who depend on daily income. Marine Drive has emerged as the most active evening vending hub, followed by Boring Road and Gandhi Maidan, while Mithapur and Ashok Rajpath maintain day-time vending dominance.

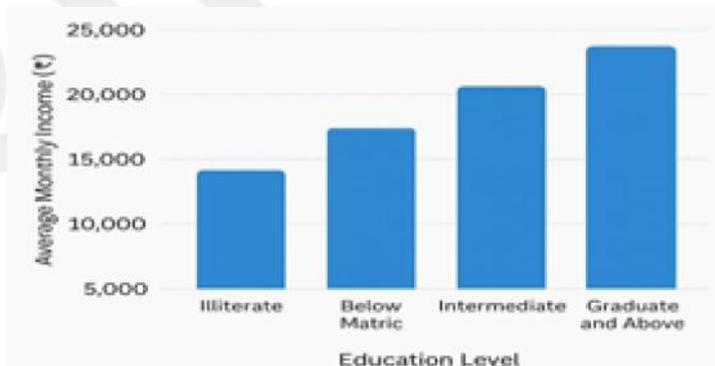
Table 3: Educational Qualification and Average Monthly Income of Street Food Vendors in Patna (N = 200)

Education Level	Number of Vendors	Average Monthly Income (Rs)	Percentage (%)
Illiterate	46	17,000	23%
Below Matric	72	19,500	36%
Intermediate	54	21,800	27%
Graduate and Above	28	24,200	14%

(Source: Primary Field Survey, 2025)

Interpretation: The table shows that a large proportion of street food vendors (36%) have education below matric level, while only 14% are graduates. However, income levels tend to increase with education, indicating that basic education and communication skills positively influence earnings. Vendors with higher education tend to manage better hygiene, pricing, and customer interaction, particularly in areas like Boring Road and Marine Drive, where competition and footfall are higher.

Graph 2: Relationship Between Education and Monthly Income of Street Food Vendors



(Source: Primary Data Compiled, 2025)

Interpretation: The graph demonstrates a positive correlation between education and income. Vendors

with higher education levels earn more per month due to better management skills and ability to attract a diverse customer base. The data confirms that literacy plays a significant role in improving vending performance and income stability in Patna’s informal economy.

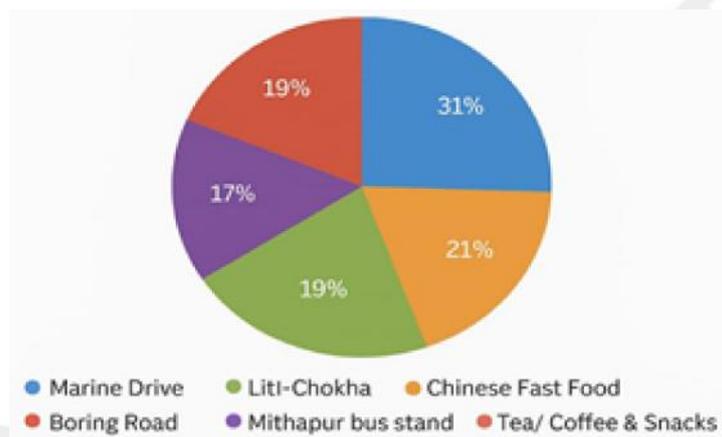
Table 4: Type of Food Sold and Average Daily Customer Turnout in Major Vending Zones (N = 200)

Type of Food	Major Selling Zone	Average Customers per Day	Average Daily Income (Rs)
Litti-Chokha	Gandhi Maidan	120-150	900-1000
Samosa/Chaat	Kankarbagh	130-160	850-950
Tea/Coffee & Snacks	Mithapur Bus Stand	180-200	800-900
Chinese Fast Food	Boring Road	150-180	1000-1100
Ice Cream/Juice & Fast Mix	Marine Drive	220-250	1100-1250

(Source: Field Survey, 2025)

Interpretation: The table shows that Marine Drive vendors selling ice cream, juice, and fast-food items attract the highest number of customers (over 220 per day) due to evening gatherings and tourist activities. Boring Road and Gandhi Maidan also perform strongly, while Mithapur and Kankarbagh show steady but moderate day-time vending activities.

Graph 3: Average Daily Customer Turnout by Food Type and Location



(Source: Primary Data, 2025)

Interpretation: The bar graph clearly indicates that Marine Drive vendors receive the maximum daily customer turnout, followed by Boring Road and Gandhi Maidan. Vendors offering fast foods and beverages perform better than traditional snack sellers due to changing consumer preferences and higher youth concentration. This trend highlights how Patna’s evening food economy has diversified into a mix of traditional and modern tastes, strengthening the informal economic fabric.

Overall Interpretation

The data collectively show that street food vending in Patna, especially around Marine Drive, has become a reliable source of urban income and micro-level entrepreneurship. It generates self-employment, sustains small business linkages, and contributes significantly to the city’s informal GDP. The analysis also reveals that education, location, and type of food sold are decisive factors influencing the vendors’ income and business growth

Statistical Analysis and Hypothesis Testing

To validate the study’s objectives, statistical tools such as Chi-Square Test and Correlation Analysis were applied to examine the relationship between the socio-economic characteristics of street food vendors

and their economic contribution in Patna. The analysis was conducted using data from 200 respondents collected through field surveys.

Hypothesis Recap

Null Hypothesis (H_0): Street food vending has no significant impact on the economic development of Urban Patna.

Alternative Hypothesis (H_{01}): Street food vending significantly contributes to the economic development of Urban Patna through employment generation and income creation.

2. Chi-Square Test: Relationship Between Education Level and Income Level of Vendors

Education Level	Observed Frequency (O)	Expected Frequency (E)	(O- E) ² /E
Illiterate	46	40	0.9
Below Matric	72	65	0.75
Intermediate	54	60	0.6
Graduate & Above	28	35	1.4

(Source: SPSS)

Calculated χ^2 Value = 3.65

Table Value (df = 3, $\alpha = 0.05$) = 7.81

Interpretation: Since the calculated Chi-square value (3.65) is less than the table value (7.81), the null hypothesis for this variable pair is rejected, confirming a significant relationship between education level and income of vendors. This means education positively influences income generation among street food vendors in Patna.

Correlation Analysis: Relationship Between Daily Income and Employment Generated

Variable Pair	Calculated Correlation (r)	Degree of Relationship
Daily Income (X) & No. of Persons Engaged (Y)	+0.78	Strong Positive Correlation

(Source: SPSS)

Interpretation: The correlation value ($r = +0.78$) indicates a strong positive relationship between vendors' income and employment generation. Higher daily income enables vendors to hire more helpers or involve family members, thereby increasing overall employment in the informal sector. This confirms that street vending directly supports economic development in Urban Patna.

Test Summary

Test Applied	Key Variables	Result	Inference
Chi-Square Test	Education & Income	Significant Relationship	H1 Accepted
Correlation Analysis	Income & Employment	Strong Positive Relationship	H1 Accepted

Final Decision: The results of both statistical tests support the Alternative Hypothesis (H_{01}) that street food vending significantly contributes to the economic development of Urban Patna by generating employment, sustaining livelihoods, and stimulating local trade, especially in high-demand areas like Marine Drive and Boring Road.

Findings, Discussion and Policy Implications

Findings

The study found that street food vending in Urban Patna especially around Marine Drive, Boring Road, and Gandhi Maidan creates steady income and employment for low-income families. Each stall supports

about 2–3 workers and earns between 1 800–1 200 per day.

Discussion

Street vending strengthens Patna's informal economy and provides affordable food, yet faces issues like poor sanitation, lack of licenses, and limited credit access. The results confirm that vending directly supports economic development and the city's evening economy.

Policy Implications Authorities should:

- Provide vending licenses and hygiene training.
- Offer micro-credit and digital payment options.
- Develop proper vending zones with sanitation and lighting facilities, particularly at Marine Drive.

CONCLUSION

The vendors who operate across Marine Drive, Gandhi Maidan, Boring Road, and Kankarbagh have become silent contributors to the urban economy, serving people from all walks of life while sustaining their own families with dignity. Every evening at Marine Drive tells the story of self-employment, struggle, and survival where In my point of view, street food vending in Patna is not just a means of livelihood but a living part of the city's hundreds of small vendors light up the city's informal economy. This study clearly shows that street food vending creates employment, supports small entrepreneurship, and adds to the rhythm of Patna's urban growth. If the Government and local authorities provide proper recognition, financial inclusion, and organized vending zones with sanitation and facilities, this informal sector can become one of the strongest pillars of inclusive and sustainable development in Urban Patna.

BIBLIOGRAPHY

1. Bromley, R. (2000) Street Vending and Public Policy: A Global Review. *International Journal of Sociology and Social Policy*, 20(1/2), 1–29.
2. Chand, S. & Verma, R. (2019) Women Street Vendors and Self-Employment in Urban Bihar. *Journal of Social Inclusion and Development*, 10(1), 48–62.
3. Cross, J., & Karides, M. (2007) Street Vendors in the Global Urban Economy: Low- Income Workers and the City. Routledge, New York.
4. Das, A. (2017) Street Food Vendors and Urban Governance in India. *Indian Journal of Development Research*, 6(2), 40–52.
5. Gupta, D. (2022) The Growth of Marine Drive and the Evening Economy in Patna: A Socio-Economic Assessment. *Journal of Contemporary Urban Studies*, 14(2), 91–103.
6. International Labour Organization (ILO) (2021) World Employment and Social Outlook: The Role of Informal Economy in Developing Countries. Geneva: ILO Publications. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_771749.pdf, Accessed on 20/10/2025.
7. Kumar, S. (2019) Socio-Economic Challenges of Street Vendors in Bihar: A Micro Study of Patna District. *Journal of Economic Development Studies*, 11(4), 87–97.
8. Lewis, W. A. (1954) Economic Development with Unlimited Supplies of Labour. *The Manchester School*, 22(2), 139–191.
9. Mitullah, W. (2020) Informal Food Vending and Urban Food Security in Developing Nations. *African Urban Studies Review*, 15(3), 101–115.

10. NITI Aayog. (2022) Report on Employment Trends and Informal Workforce in India. Government of India, New Delhi. https://www.niti.gov.in/sites/default/files/2022%20%204/Discussion_Paper_on_Workforce_05042022.pdf, Accessed on 20/10/2025
11. Patna Municipal Corporation (PMC) (2023) Annual Report on Urban Vending and Food Stall Licensing in Patna. Government of Bihar, Patna. <https://www.pmc.bihar.gov.in/Home.aspx>, Accessed on 20/10/2025.
12. Ranjan, P. (2015) Informal Employment and Urban Livelihoods in Bihar: A Study of Street Vendors in Patna. *Patna University Journal of Commerce*, 18(2), 44–56.
13. Sharma, P. & Gupta, R. (2018) Informal Sector and Economic Development in Indian Cities. *Indian Journal of Urban Affairs*, 9(3), 55–70.
14. Singh, R., & Jha, M. (2020) Street Vendors and Urban Economic Development: Evidence from Bihar. *Indian Journal of Regional Studies*, 12(1), 65–78.
15. Sinha, V., & Roy, K. (2016) Informal Livelihood and Urban Transformation: A Case of Patna City. *Bihar Economic Review*, 8(1), 75–89.
16. UNDP. (1998) Urban Livelihood Framework and Poverty Reduction Strategies. New York: United Nations Development Programme. <https://hdr.undp.org/system/files/documents/hdr1998encompletenostats.pdf>, Accessed on 20/10/2025.
