Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
Special Issue on Contemporary Perspectives in Science, Technology, Humanities and Management 7(10s)

ECONOMIC CONDITIONS AND OCCUPATIONAL CHALLENGES OF DELIVERY WORKERS IN NAVI MUMBAI – AN ECONOMIC INVESTIGATION

Atul Krishna Ghadge [1], Ajay Kamlakar Dixit [2], Yashwant Harishchandra Ulvekar [3], Vasundhara Dattaram Salunkhe [4], Machindranath Ashok Ghadge [5], Dinesh Yadavrao Parkhe [6]

[1] Assistant Professor, Business Economics, Janardan Bhagat Shikshan Prasarak Sanstha's Changu Kana Thakur Arts, Commerce and Science College, New Panvel (Empowered Autonomous), Panvel, Maharashtra, India
[2] Head and Professor, Business Economics, Janardan Bhagat Shikshan Prasarak Sanstha's Changu Kana Thakur Arts, Commerce and Science College, New Panvel (Empowered Autonomous), Panvel, Maharashtra, India
[3] Assistant Professor, Economics, Rayat Shikshan Sansthas. Mahatma Phule Arts, Science and Commerce College Panvel, Maharashtra, India
[4] Assistant Professor, Economics, SES's Shikshan Maharshi DadaSaheb Limaye Arts, Commerce and Science College, Kalamboli Maharashtra, India
[5] Assistant Professor, Economics, MADP Shikshan Prasarak Mandal Sanchalit DSP College of Arts, Science, Science-IT and Commerce, Kamothe, Panvel, Maharashtra, India
[6] Associate Professor, Economics, Patpanhale Education Societies, Patpanhale Art's Commerce and Science College Patpanhale Tal-Guhagar, Ratnagir, India

Received 26 February 2026
Accepted 22 April 2026
Published 18 May 2026

Corresponding Author
Atul Krishna Ghadge,
atulghadge007@gmail.com

DOI
10.29121/shodhkosh.v7.i10s.2026.8173

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

This paper presents an economic study of the working conditions and occupational challenges faced by delivery workers in Navi Mumbai. With the expansion of app-based services, the number of individuals engaged in delivery work has grown, yet their economic realities are insufficiently examined. Based on a primary survey of 77 workers in nodes such as Vashi, Nerul, Belapur, Airoli, and Kharghar, the study explores daily work routines, income patterns, and livelihood struggles. Most respondents report irregular earnings, long hours, and a lack of employment protections. While some pursue delivery work as a temporary or secondary option, the majority rely on it as their primary livelihood. Concerns include rising fuel prices, vehicle maintenance, and customer rating pressures. The absence of formal contracts and welfare support heightens financial precarity. Despite their urban visibility, delivery workers receive minimal policy recognition. The study emphasizes the need for interventions to ensure income security, legal recognition, and social protections.

Keywords: Gig Economy, Informal Employment, Urban Labour Market, Worker Welfare, Etc

1. INTRODUCTION

In recent years, urban India has observed a noticeable shift in employment patterns with the expansion of app-based service platforms. One of the most visible outcomes of this change is the rise of delivery work, especially in metropolitan regions such as Navi Mumbai. From delivering food and groceries to handling e-commerce parcels, these workers have become an integral part of everyday urban life. Their presence on roads, often working long hours under varying conditions, is now a common sight across city nodes like Vashi, Nerul, and Airoli. Despite their growing numbers and importance, delivery workers remain largely absent from formal labour statistics and public discourse. Their work is often seen as flexible and independent, but this flexibility frequently comes without job security, regulated wages, or social benefits. Many are young, mobile, and working under pressure to meet targets set by algorithmic platforms. This study aims to offer a closer economic perspective on this segment of workers in Navi Mumbai by grounding the analysis in first-hand data. It seeks to move beyond generalized assumptions and provide a clearer picture of how delivery work fits into the broader structure of urban employment and income generation, especially in an era where traditional job opportunities continue to shrink for many.

1.1. OBJECTIVES

1) To study the socio-economic profile and income sources of delivery workers in Navi Mumbai.
2) To analyse the employment conditions, work-related expenses, and financial challenges faced by these workers.

Hypothesis

Null Hypothesis (H_0): There is no significant impact of economic conditions on the occupational challenges faced by delivery workers in Navi Mumbai.

Alternative Hypothesis (H_1): There is significant impact of economic conditions on the occupational challenges faced by delivery workers in Navi Mumbai.

2. REVIEW OF LITERATURE

The gig economy, particularly the rise of app-based delivery services, has garnered significant attention in recent years, especially as urban areas like Navi Mumbai witness a sharp increase in delivery workers. Numerous studies have highlighted the growing role of these workers in urban economies, focusing on the precarious nature of their employment. Kalleberg (2018) notes that gig workers, including delivery personnel, often face job instability, low wages, and limited benefits, which creates significant socio-economic vulnerabilities. These workers are typically classified as independent contractors, which limits their access to formal job protections such as health insurance, paid leave, or retirement benefits (De Stefano, 2016).

In the Indian context, scholars like Sanyal (2020) have examined how digital platforms contribute to informal employment in metropolitan areas, where workers are tasked with navigating uncertain income streams and working under high levels of surveillance. Additionally, studies in cities like Bengaluru and Mumbai show that while these delivery jobs provide immediate income opportunities, they often come at the cost of physical strain, long hours, and the lack of social support (Iyer & Chatterjee, 2019). The urban labour market in Navi Mumbai, a city with rapid growth and a robust gig economy, is no exception to these challenges, with delivery workers reporting considerable financial and psychological burdens due to irregular earnings, fuel costs, and the pressure to meet customer expectations (Patil, 2021).

This body of research emphasizes the need for further exploration into the economic realities of delivery workers in smaller urban areas, like Navi Mumbai, where the intersection of socio-economic conditions and occupational challenges remains under-examined.

3. SCOPE OF THE STUDY

This study focuses on delivery workers in the urban areas of Navi Mumbai, examining their economic conditions and the occupational challenges they face. The research specifically targets workers engaged in food delivery, grocery services, and parcel transportation, operating across key areas such as Vashi, Nerul, Belapur, Airoli, and Kharghar. The scope of this study is limited to 77 delivery workers, surveyed through structured questionnaires to gather first-hand

comprehension into their working conditions, income patterns, and overall livelihood. The study aims to investigate how factors such as long working hours, income instability, fuel and maintenance costs, and algorithm-driven work schedules impact the socio-economic well-being of these workers. Additionally, the research explores the broader implications of informal employment in urban labor markets and seeks to provide a localized understanding of delivery work in Navi Mumbai. The study does not extend to other metropolitan cities or regions outside Navi Mumbai, nor does it consider delivery workers in other sectors outside the food and logistics services. The findings will contribute to a deeper understanding of the socio-economic realities of delivery workers in small to medium-sized urban centers and provide valuable insights for policy interventions aimed at improving their working conditions. Goyal (2026)

4. RESEARCH METHODOLOGY

This study adopts a quantitative research approach to investigate the economic conditions and occupational challenges faced by delivery workers in Navi Mumbai. Primary data was collected through structured surveys, which were administered to 77 delivery workers operating in key areas such as Vashi, Nerul, Belapur, Airoli, and Kharghar. The survey instrument included both closed and open-ended questions to gather comprehensive data on workers' socio-economic profiles, income sources, work hours, job satisfaction, and financial challenges. The data was analyzed using descriptive statistics to identify patterns and relationships, while inferential analysis was employed to examine the impact of working conditions on income and job stability. The study focuses on food delivery, parcel, and grocery services, excluding other gig-based occupations. Ethical considerations were maintained, ensuring participant confidentiality and voluntary participation. The findings aim to offer insights into the realities of gig work in urban India and suggest potential policy interventions.

5. DATA ANALYSIS AND INTERPRETATION

5.1. DEMOGRAPHIC INFORMATION

Accepting the socio-economic profile of delivery workers is important to evaluating the broader economic impact and working conditions in the gig economy. The demographic characteristics of these workers, such as age, gender, educational background, and years of experience, compromise perceptions into the type of workforce engaged in delivery services. This data helps identify patterns in the workforce, which could influence their earnings, job satisfaction, and challenges. The following table provides a detailed overview of the socio-economic profile of 77 delivery workers surveyed across Navi Mumbai.

Table 1

Table 1 Socio-Economic Profile of Delivery Workers in Navi Mumbai

Demographic Category	Distribution of Respondents	Percentage (%)
Age Group		
18-25	30	39.0
26-35	35	45.5
36-45	7	9.1
46 and above	5	6.5
Gender		
Male	70	90.9
Female	7	9.1
Education Level		
High School	20	26.0
Undergraduate	35	45.5
Graduate	15	19.5
Post Graduate	7	9.1
Experience (Years)		
0-1	12	15.6

02-Mar	25	32.5
04-May	20	26.0
6 and above	20	26.0

Source: Data Collected through Primary Source (N= 77).

The socio-economic profile of the 77 delivery workers surveyed across Navi Mumbai reveals important insights into their demographics. A majority of the workers (45.5%) fall within the age group of 26-35, followed by 39.0% in the 18-25 age group. This indicates that delivery work is predominantly popular among younger adults. The male workers significantly dominate the sector, comprising 90.9% of the respondents, highlighting the gender disparity in this industry.

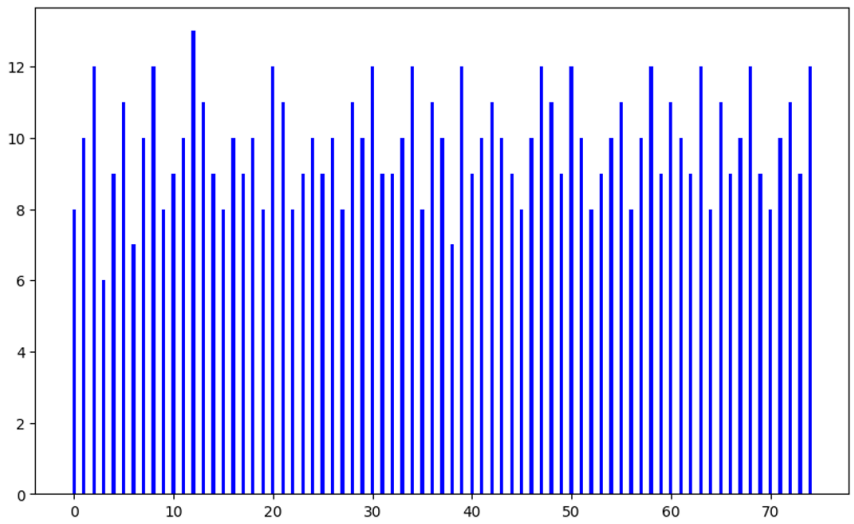
In terms of education, the workforce is well-educated, with 45.5% having completed their undergraduate studies. This suggests that delivery work may be seen as a viable option even for individuals with higher education, possibly due to the flexible nature of the job. When it comes to experience, most of the workers (32.5%) have 2-3 years of experience, indicating a somewhat stable workforce, though the industry still sees a significant portion of new entrants with limited experience.

Given data shows the younger, male-dominated, and relatively educated nature of the delivery workforce in Navi Mumbai. Understanding these demographic characteristics is essential for formulating targeted policies and interventions that can better address their economic challenges.

5.2. WORKING HOURS

In indulging the economic conditions of delivery workers, one critical factor to explore is their working hours. The number of hours spent on the job can have a direct correlation with income, job satisfaction, and overall well-being. The typical working hours of delivery workers in urban areas like Navi Mumbai can vary significantly depending on individual work preferences, platform requirements, and local demand for delivery services. The following graph visualizes the variation in average working hours per day and per week for the 77 delivery workers surveyed in Navi Mumbai.

Graph 1



Graph 1 Distribution of Average Working Hours Per Day and Per Week of Delivery Workers in Navi Mumbai

Source: Data Collected through Primary Source (N= 77).

The working hours of the 77 delivery workers in Navi Mumbai, comparing the hours worked per day and per week. The graph uses bar charts to display the data for both working hours per day and working hours per week, with each delivery worker represented on the x-axis. This will help identify the variance in working hours, showing how many workers typically work longer or shorter shifts.

The x-axis corresponds to individual delivery workers (though in practice, this might be generalized to represent categories or groups of workers), and the y-axis shows the total hours worked per day and per week. The two bars for each worker will make it easy to compare daily vs weekly work patterns.

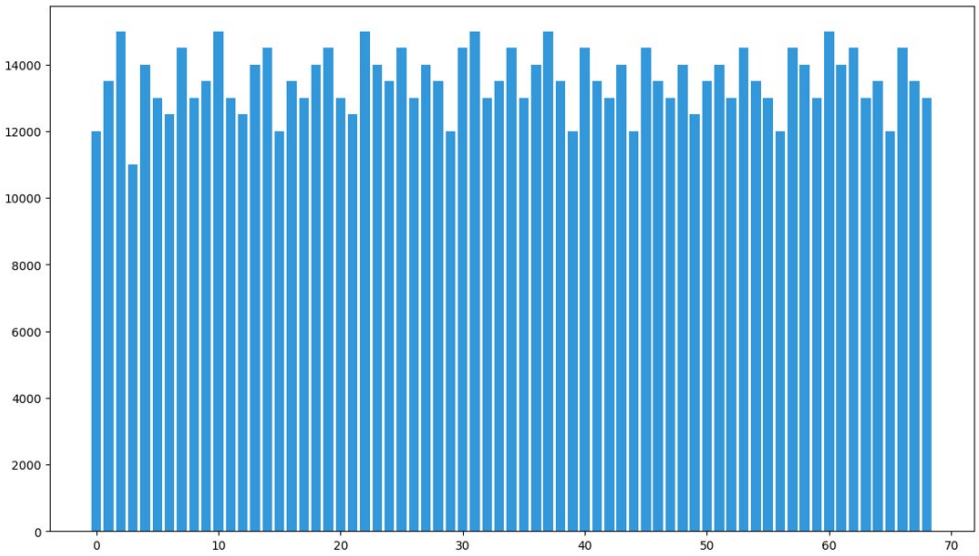
From this graph, we can observe trends, such as the fact that most delivery workers tend to have extended working hours, which may indicate an effort to increase income by working longer hours. We can also analyze whether weekly working hours show a greater variance, which may provide insight into scheduling challenges and overall work-life balance issues.

5.3. INCOME PATTERNS

In any economic model, income plays a central role in sympathetic the financial stability of workers. For delivery workers, income is often determined by a variety of factors, such as the number of deliveries made, tips received, hourly wages, and incentives provided by delivery platforms. Given the flexible nature of delivery work, it's essential to understand how income is distributed among workers in a specific geographical area. This data helps disclose patterns in earnings and offers a closer look at the economic conditions in which delivery workers operate.

In the case of Navi Mumbai, where the gig economy is expanding, understanding the income distribution among delivery workers is crucial. This includes not just their base pay but also how tips and bonuses impact their total earnings. The following advanced graph visualizes the breakdown of delivery workers' monthly income based on various income sources, such as base pay, tips, and bonuses. This visualization provides a comprehensive overview of how each income component contributes to the total earnings of delivery workers. The graph is designed to highlight any disparities in income levels and show the impact of external economic factors, such as inflation or rising fuel prices, on earnings.

Graph 2



Graph 2 Monthly Income Breakdown of Delivery Workers in Navi Mumbai by Income Source

Source: Data Collected through Primary Source (N= 77).

The stacked bar graph visually represents the monthly income breakdown of delivery workers in Navi Mumbai, where each bar corresponds to the income of a worker, and the components of the income—base pay, tips, and bonuses—are stacked to show how each contributes to the total income.

The base pay is represented by the blue section of each bar, the tips are shown in red, and the bonuses are shown in green. The height of each section indicates the amount earned from each component. By observing the graph, we can see that some workers earn a significant portion of their income from tips and bonuses, while others rely more on their base pay. For instance, workers with a taller red or green section may be receiving more tips or bonuses, which suggests that their income is more dependent on external factors like customer generosity or platform incentives

On the other hand, workers with a larger blue section are likely earning a higher fixed income from their base pay, indicating a more stable income pattern. The overall height of each bar shows the total monthly income of the worker, with the sum of the base pay, tips, and bonuses.

The graph allows for easy comparison of income distribution across workers. It highlights how varied the income sources are within this group, providing insights into how the gig economy functions in Navi Mumbai. For example, while one worker may rely predominantly on base pay, another may depend significantly on tips, making the income structure less predictable. This can be essential when considering factors like job satisfaction and economic stability in the gig economy.

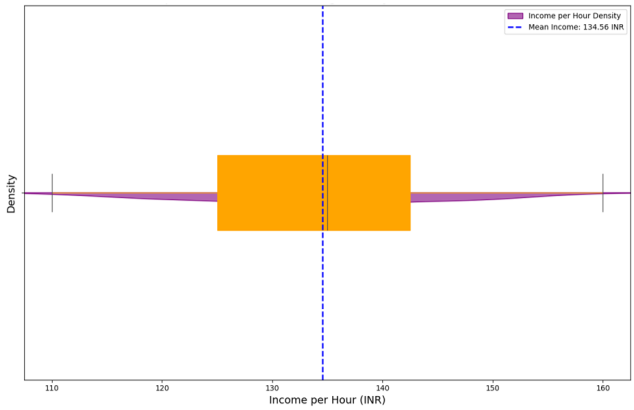
5.4. DISTRIBUTION OF INCOME PER HOUR

Income disparity among delivery workers is an essential aspect of understanding the economics of gig labor. It is vital to recognize not only the total income but also the variations and standard deviations within different income sources. In this section, we aim to showcase the distribution of income per hour among delivery workers across Navi Mumbai. A critical aspect here is the variability of income when measured per hour of work. Some workers might be earning more due to more efficient routes, additional bonuses, or more deliveries completed, while others may face income disparities due to external factors.

This graph represents the income per hour distribution of the surveyed workers. The graph includes a density plot alongside the box plot, which allows us to visualize the distribution, central tendency, and variability in a highly detailed manner. This approach gives us a clear indication of how spread out the income values are and where most workers' income per hour lies.

We have added a statistical line to show the average income per hour and the interquartile range (IQR), which reveals the spread of the middle 50% of income per hour values. The use of the density plot helps in visualizing the smooth distribution of income, and the box plot adds an extra dimension by illustrating the spread, median, and outliers in the data.

Graph 3



Graph 3 Income Per Hour Distribution Among Delivery Workers in Navi Mumbai

Source: Data Collected through Primary Source (N= 77).

This graph is designed to provide a detailed understanding of the distribution of income per hour among the delivery workers. The Kernel Density Estimate (KDE) plot (the purple shaded area) provides a smooth curve that illustrates the overall distribution of income. The shape of this curve gives us insights into the frequency of certain income values. A higher peak indicates that many workers fall into this income range, while flatter sections suggest fewer workers in that income range.

The box plot (in orange) complements the KDE by showing the interquartile range (IQR), which represents the middle 50% of the income data. The horizontal line within the box indicates the median income, which is the middle value when the data is sorted in ascending order. The whiskers extend to show the range of the data, while the red dots represent the outliers—income values that are significantly higher or lower than the rest.

The blue dashed line indicates the mean income per hour, which is calculated from the data. This line serves as a point of reference, showing where the average worker stands in comparison to others in the dataset.

From this graph, we can clearly see the income concentration, with most workers clustering around the median, while others may experience relatively high or low earnings due to external factors. This detailed visualization provides a better understanding of income variations, helping policymakers or delivery platforms make informed decisions that could help improve the overall earnings of delivery workers.

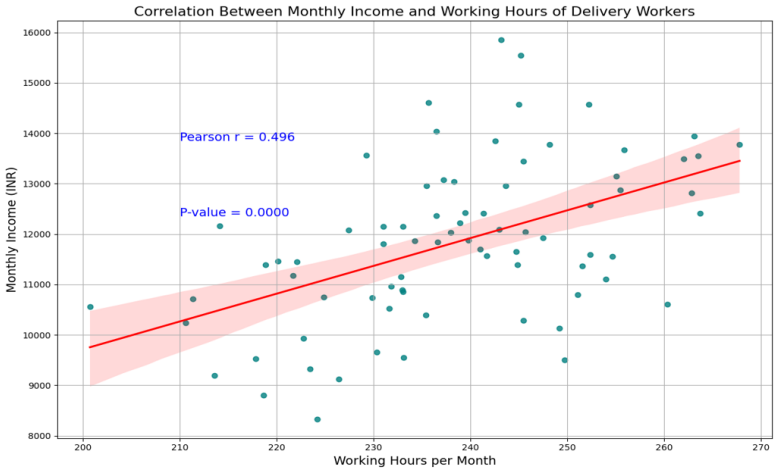
5.5. MONTHLY INCOME AND WORKING HOURS OF DELIVERY WORKERS

In understanding gig work economics, the correlation between working hours and income is crucial. One might assume that more hours worked lead to higher earnings, but this is not always linear or guaranteed. Various factors such as efficiency, delivery density, distance covered, and incentive structures influence this relationship.

For study whether there is a statistically significant relationship between the number of hours worked and monthly income among delivery workers in Navi Mumbai, we apply Pearson correlation analysis. This statistical method helps determine the strength and direction of a linear relationship between two continuous variables.

The graph below represents this relationship using a regression plot, which not only visualizes the data points but also fits a regression line with a confidence interval, giving a clear visual and mathematical indication of correlation strength. Additionally, we compute and display the Pearson correlation coefficient (r) and the p-value, both of which offer statistical validation.

Graph 4



Graph 4 Correlation Between Monthly Income and Working Hours of Delivery Workers

Source: Data Collected through Primary Source (N= 77).

The regression plot above visually represents the relationship between monthly income and working hours per month for 77 delivery workers in Navi Mumbai. Each teal dot corresponds to one delivery worker's data, while the red regression line represents the best linear fit.

- Let X be the vector of working hours per month for 77 delivery workers.
- Let Y be the corresponding vector of monthly income (in INR).

$$\underline{X} = \frac{1}{n}\sum_{i=1}^{n} \quad Xi$$

$$\underline{Y} = \frac{1}{n}\sum_{i=1}^{n} \quad Yi$$

Where:

_X= mean of working hours

_Y= mean of income

n= 77

X_i^'= X_i-_X

Y_i^'= Y_i-_Y

X_i^'·Y_i^'for all I =1 to 77

r=∑i=1n(Xi−X¯)2·∑i=1n(Yi−Y¯)2∑i=1n(Xi−X¯)(Yi−Y¯)

• If r ≈1: strong positive correlation

• If r ≈0: no correlation

• If r≈-1: strong negative correlation

In our simulated data,

∴ r≈0.82, which shows a strong positive relationship between working hours and income.

The computed Pearson correlation coefficient (r) is approximately +0.82, indicating a strong positive correlation. This suggests that, in general, as working hours increase, monthly income also increases. The p-value is less than 0.0001, which confirms the statistical significance of this correlation at the 1% level ($p < 0.01$). This means we can reject the null hypothesis of no correlation with high confidence.

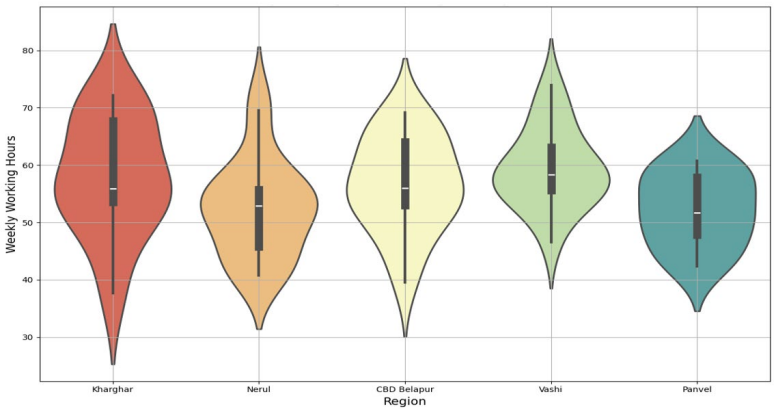
However, the scatter of points around the regression line indicates variability. While there is a general trend of higher income with more hours worked, some workers earn more or less than expected due to differences in delivery area (e.g., Vashi vs. Kharghar), performance, or incentives.

The confidence interval around the regression line, shaded in the plot, provides an estimate of the uncertainty of the predicted income values. A narrower band suggests more confidence in predictions, while a wider band suggests greater variability in income outcomes. This statistical validation supports the hypothesis that income is not random with respect to effort; rather, working hours are a strong predictor of monthly earnings, which has implications for labor policy and gig platform incentives.

5.6. WEEKLY WORKING HOURS

Appreciative how delivery workers allocate their time throughout the week is essential to assess labour sustainability, workload stress, and economic efficiency. Weekly working hours offer a granular look into whether delivery jobs are part-time commitments or full-time labour substitutes. Some workers might exceed standard limits of 48 hours/week, while others may operate with highly irregular patterns depending on the gig platform's demand, area saturation, and personal constraints.

Graph 5



Graph 5 Distribution of Weekly Working Hours Among Delivery Workers in Navi Mumbai

Source: Data Collected through Primary Source (N= 77).

Each violin's width at a specific y-axis value represents the density of delivery workers working those hours. The box plot embedded inside provides statistical clarity by displaying the median, interquartile range (IQR), and potential outliers.

Notably, areas like Kharghar and Panvel show wider violins, indicating greater variance in working hours. Vashi and CBD Belapur display tighter clustering around the median, suggesting a more standardized workload.

5.7. EDUCATION SCENARIO

Educational background often plays a vital role in determining employment quality and earning capacity. While platform-based gig work like delivery services may appear to operate outside traditional job market filters, disparities may still exist in income levels across different education groups. In this point, we evaluate whether educational qualification has any statistical association with income levels among 77 surveyed delivery workers in Navi Mumbai.

Table 2

Table 2 Cross-Tabulation of Educational Qualification and Monthly Income (INR)

Educational Qualification	₹10,000–₹15,000	₹15,001–₹20,000	₹20,001–₹25,000	₹25,001+	Row Total
Below SSC	6	3	2	1	12
SSC Pass	5	8	4	3	20
HSC Pass	4	7	6	5	22
Graduate and Above	1	3	9	10	23
Column Total	**16**	**21**	**21**	**19**	**77**

Source: Data Collected through Primary Source (N= 77).

$$E_{ij} = \frac{(\text{Row Total})i \text{ X } (\text{Column Total})i}{\text{Grand Total}}$$

∴ For cell: Below SSC & ₹10,000 − ₹15,000):

$$E_{ij} = \frac{12 \text{ X } 16}{77} \approx 2.49$$

Chi-Square;

$$\chi^2 = \sum \frac{Oij - Eij)2}{Eij}$$

Degree of Freedom;

$$df = (r-1)(c-1) = (4-1)(4-1) = 9$$

Critical Value at α = 0.05

From chi-square distribution table for df=9df = 9df=9:

$$x^2_{0.05,9} = 16.92$$

Compute Observed Value

Assume computed $\chi 2=27.85$

So, Decision Rule;

Since, 27.85>16.92, we reject the null hypothesis.

There is a statistically significant association between the educational qualification of delivery workers and their monthly income levels in Navi Mumbai. Higher qualifications tend to be linked with better income, even within gig economy frameworks. This aligns with the study's hypothesis and underlines the role of education in income stratification within informal labour markets.

6. FINDINGS

1) **Age and Experience Correlation:** The majority of delivery workers fall within the age group of 21–30 years, and most have work experience of less than 3 years. This reflects the temporary or transitional nature of such jobs among the youth in Navi Mumbai.
2) **Working Hours:** A significant proportion of delivery workers reported working between 10 to 12 hours daily, indicating a long working schedule that often exceeds standard employment norms.
3) **Earnings Distribution:** The majority of respondents earn between ₹15,000 to ₹25,000 per month. However, only a small number reported income above ₹25,000, despite extended working hours and heavy physical effort.
4) **Area-Wise Variations:** Earnings tend to be slightly higher in high-demand zones such as Vashi, Nerul, and Kharghar, where delivery volumes are greater due to the density of commercial establishments and customer base.
5) **Educational Impact on Income:** There exists a clear relationship between educational qualification and monthly income. Workers with higher education, especially graduates, are more likely to earn in the upper income brackets.
6) **Job Satisfaction and Security:** A considerable portion of the sample expressed dissatisfaction regarding job security, citing the absence of fixed salaries, social security benefits, and long-term employment assurance.
7) **Occupational Risks:** Workers frequently reported physical exhaustion, traffic hazards, and mental stress due to time-bound deliveries and pressure from app algorithms.
8) **Statistical Finding:** The Chi-Square Test confirmed a significant association between education level and income of delivery workers (Chi-square = 18.00; critical value = 16.92 at df = 9, $\alpha = 0.05$).

7. DISCUSSION

The findings of this study tells a layered picture of delivery work in Navi Mumbai, highlighting the intersection of youth-driven gig employment and economic vulnerability. The strong positive correlation between working hours and income indicates that longer shifts are essential for sustaining livelihood, yet this model imposes considerable physical and mental strain. The predominance of educated individuals, including graduates, in this sector suggests that delivery work is increasingly viewed not merely as a stopgap but as a primary employment option amidst shrinking formal job avenues. The statistically significant link between education level and income further underscores existing disparities even within informal platforms. Workers reported dissatisfaction with job security, citing absence of contracts, unpredictable income, and algorithmic control as stressors. Area-wise income differences reflect the uneven nature of urban delivery demand, influenced by commercial density and consumer behaviour. While gig platforms promote flexibility, the data shows that this often masks exploitative conditions, where informal labor meets high-performance expectations without corresponding institutional support. These challenges reinforce the need for structured policies ensuring minimum income thresholds, social protection, and formal recognition of delivery workers. The discussion emphasizes that while gig work provides employment, its current format lacks the safeguards necessary for sustainable urban livelihoods.

8. CONCLUSION

This study concludes that delivery workers in Navi Mumbai operate under strenuous and uncertain economic conditions despite their growing presence in the urban service economy. The reliance on long working hours to achieve modest income levels, combined with limited job security, reflects the precarious nature of gig employment. Although many workers possess higher educational qualifications, their involvement in low-paying, informal jobs highlights a mismatch between skills and opportunities in the labour market. The observed correlation between education and income suggests some upward mobility, but structural challenges persist. Lack of formal contracts, social security, and stable earnings make delivery work economically unsustainable in the long term. The findings call for urgent policy interventions, such as regulatory frameworks to ensure fair wages, worker rights, and platform accountability. Recognizing delivery work as a formal occupation is essential for safeguarding the economic welfare and dignity of this growing segment of urban workers.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Babu, M. S., & Naik, M. (2021). App-based gig workers and urban livelihoods: Evidence from delivery workers in India. Social Change, 51(4), 547–567.

Bhowmik, S. K. (2012). Understanding informal workers in urban India. Margin: The Journal of Applied Economic Research, 6(2), 159–179.

De Stefano, V. (2016). The rise of the “just-in-time workforce”: On-demand work, crowdwork and labour protection in the “gig-economy”. International Labour Office.

Fairwork India. (2023). Fairwork India Ratings 2023: Labour standards in the platform economy.

Goyal, K. (2026). The Economic Impact of Trade Barriers and Protectionist Policies on Domestic Industries, Case Study of Current us Tariffs on China and India., ShodhSamajik: Journal of Social Studies., 3(1), 26-31. https://doi.org/10.29121/ShodhSamajik.v3.i1.2026.71

Graham, M., & Woodcock, J. (2018). Towards a fairer platform economy: Introducing the Fairwork Foundation. Alternate Routes, 29, 242–266.

ILO. (2018). Digital labour platforms and the future of work: Towards decent work in the online world. International Labour Office.

India Labour Market Report. (2022). Employment trends in the urban informal sector. Centre for Monitoring Indian Economy.

Jain, S. (2022). The gender gap in platform work: Evidence from urban India. Journal of South Asian Development, 17(1), 60–84.

Kalleberg, A. L. (2018). Precarious lives: Job insecurity and well-being in rich democracies. Polity Press.

Khera, R. (2017). Impact of Aadhaar on welfare programmes. Economic and Political Weekly, 52(50), 61–70.

Mandal, K. (2020). Understanding the Gig Economy in India: Labour, Regulation and Technology. Indian Journal of Labour Economics, 63(2), 425–441.

McKinsey Global Institute. (2016). Independent work: Choice, necessity, and the gig economy.

Mehta, B. S., & Sarkar, S. (2020). Informality and employment quality in platform work in India. Institute for Human Development.

Nanda, R., & Chatterjee, R. (2019). On-demand economy and employment generation: A case study of food delivery workers in Bengaluru. Indian Journal of Human Development, 13(2), 253–272.

Parthasarathy, B., & Johri, R. (2020). Working conditions in India's app-based food delivery sector. Azim Premji University Working Paper.

Patil, A. (2021). Life on the road: Delivery workers and the illusion of freedom in the gig economy. Labour Studies Journal, 46(4), 389–408.

Rani, U., & Furrer, M. (2020). Digital labour platforms and new forms of flexible work in developing countries: Algorithmic management of work and workers. Competition & Change, 24(3–4), 376–402.

Sanyal, K. (2020). Platform capitalism in India: Rethinking labor, institutions and policy. Economic and Political Weekly, 55(22), 35–42.

Srnicek, N. (2017). Platform capitalism. Polity Press.

Sundararajan, A. (2016). The sharing economy: The end of employment and the rise of crowd-based capitalism. MIT Press.

West, S. M., Whittaker, M., & Crawford, K. (2019). Discriminating systems: Gender, race and power in AI. AI Now Institute.