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BRIDGING THE FORMAL–INFORMAL DIVIDE: AN ANALYSIS OF SEMI-FORMAL EMPLOYMENT

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Abstract
The gig economy has emerged as one of the most significant transformations in the contemporary labour market, reshaping how individuals engage in work and earn their livelihoods. While gig work offers flexibility and income opportunities, it also raises critical concerns regarding economic viability, livelihood sustainability, and social security. This study focuses on gig workers in Hojai district of Assam to evaluate whether gig work provides a sustainable livelihood or merely a temporary coping mechanism in the absence of stable employment. The first objective of the study is to evaluate the economic viability of gig work by conducting a cost–benefit analysis across different categories of gig workers. This analysis examines income levels, flexibility, time costs, and hidden financial trade-offs that influence overall returns from gig employment. The second objective explores the key challenges and constraints faced by gig workers in sustaining their livelihoods, including irregular demand, algorithmic control, rising competition, lack of skill upgradation, and the absence of institutional social protection. The third objective aims to propose policy recommendations that address these vulnerabilities by suggesting measures for income stabilization, access to welfare schemes, and integration of gig workers into broader labour protection framework. Interviews were taken to capture both quantitative and qualitative dimensions of gig work. The findings are expected to contribute to the broader discourse on platform-based labour markets in India and generate insights into how semi-urban districts like Hojai can design inclusive policies that enhance the working condition of gig workers.
Keywords: *gig economy, cost, benefit, informal sector,*

Objectives

i. To evaluate the economic viability of gig work in Hojai through a cost–benefit analysis of different categories of gig workers.
ii. To analyze the challenges faced by gig workers in sustaining their livelihoods.
iii. To propose policy recommendations aimed at enhancing the livelihood prospects and social protection of gig workers in Hojai.

Literature review

Hennink and Kaiser, in their systematic review on qualitative data saturation, found that between 9 to 17 interviews are typically sufficient for reaching saturation in relatively homogeneous study populations. Their study emphasized that saturation often depends on the level of thematic depth required, with more complex or heterogeneous populations demanding larger samples.

Guest, Bunce, and Johnson, in their study on interview data, reported that basic themes often emerge within the first six interviews, while saturation of major themes is generally achieved by the twelfth interview. Their findings support the view that relatively small sample sizes can be sufficient in studies with a focused scope and homogeneous respondents.

Cohen argued that in quantitative studies, the adequacy of sample size should be determined with reference to statistical power, effect size, and significance level. However, he noted that a sample size of 30 or more is often sufficient to achieve reliable results when only general trends are being examined.

According to the Central Limit Theorem, as discussed by Hogg and Craig in their probability and statistical theory, when the sample size exceeds 30 observations, the sampling distribution of the mean tends to approximate normality regardless of the population's distribution. This theoretical foundation is often used to justify the selection of a minimum sample size of around 30 in quantitative research.

VanVoorhis and Morgan emphasized that while larger sample sizes increase precision, a sample size of at least 30 respondents per group is typically adequate for parametric tests. They supported the view that beyond this point, the benefits of additional cases diminish relative to the effort required to collect them.

De Stefano and ILO researchers emphasised that non-monetary costs such as foregone social protection (health, pension, unemployment), mental/physical stress are important hidden costs that must be monetised or qualitatively captured in a CBA.

Methodology

This study uses an exploratory design combining qualitative interviews and quantitative measurement to examine the viability of gig work in Hojai. Because there is no registry for gig workers in Hojai, the population size is unknown; therefore purposive and snowball sampling were used to recruit workers across four gig categories. A total of 50 respondents were selected (Delivery boy = 10; Rickshaw driver = 10; House-help = 10; Bakers = 10, Electricians =10). The sample size was chosen to satisfy two complementary aims: first, to achieve thematic saturation for qualitative inquiry (saturation in focused topics commonly occurs within 9–17 interviews), and second, to provide descriptive quantitative estimates whose sample-mean behaviour is reasonably stable in line with common practice that recommends ≈ 30+ cases for exploratory mean estimation (Central Limit Theorem guidance). Interviews were conducted to collect primary data from respondents engaged in various forms of gig work. To assess the viability and economic feasibility of these gig occupations, Benefit-Cost Analysis (BCA) was taken up.

Introduction

The gig economy refers to a system of employment characterized by short-term, flexible, and task-based arrangements rather than traditional, long-term contractual jobs (De Stefano, 2016). Workers engaged in this system, commonly referred to as gig workers, perform assignments ranging from digital services such as content writing, graphic designing, or software development, to location-based services such as food delivery, ride-hailing, household repair, or event management (Kässi&Lehdonvirta, 2018). Unlike conventional wage employment, where stability, benefits, and long-term security are emphasized, gig work is shaped by autonomy, flexibility, and fluidity of opportunities.

Several structural and technological shifts have contributed to the rapid expansion of the gig economy. Digitalization and the rise of platform-based businesses have significantly lowered the transaction cost of matching workers with employers (Codagnone et al., 2016). The global spread of mobile internet has enabled even small-scale service providers to access wide networks of consumers, thereby increasing the demand for gig work. Additionally, globalization and competitive pressures have pushed firms to adopt flexible labour models in order to reduce costs (Friedman, 2014). People's motivation to participate in the gig economy is equally diverse. For some, gig work provides greater autonomy, flexible scheduling, and opportunities for supplementary income (Wood et al., 2019). Students, homemakers, and caregivers often find gig work more accommodating than traditional jobs, as it allows them to balance personal and professional responsibilities. In developing economies, however, gig work is often driven less by choice and more by necessity, as rising unemployment and underemployment leave limited alternatives.

Nonetheless, the gig economy presents a double-edged reality. On the one hand, it offers income diversification, skill enhancement, and entrepreneurial independence; on the other hand, it is associated with income volatility, lack of job security, social protection deficits, and heightened mental stress (Berg et al., 2018). The precariousness of gig work has raised concerns about the long-term sustainability of such employment models, especially in countries where social safety nets are weak.

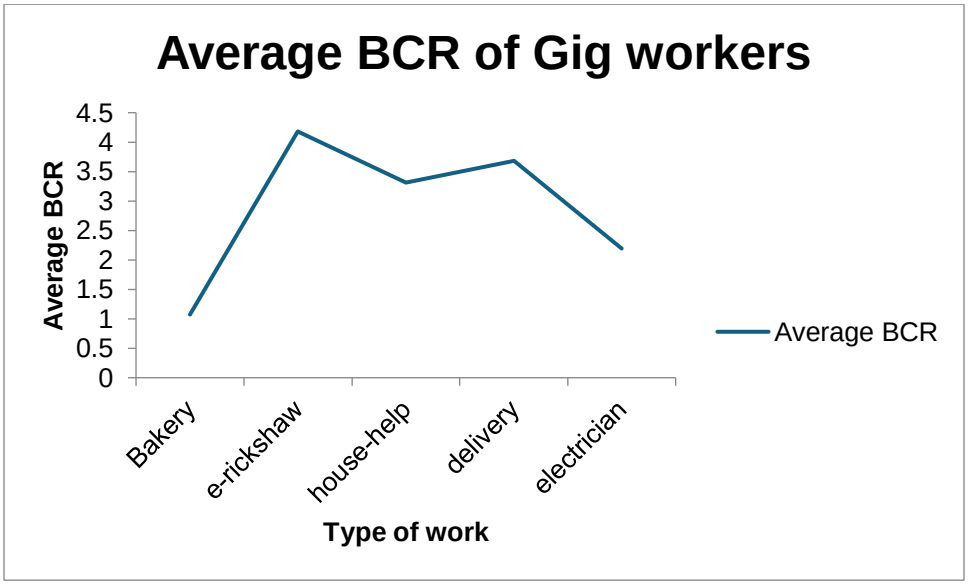
In this context, the present study aims to critically examine how gig work affects individuals in terms of both costs and benefits. Specifically, it seeks to analyze the tangible economic returns, indirect benefits, and non-monetary aspects of gig work, alongside the challenges of insecurity, stress, and the absence of welfare provisions. By evaluating the trade-offs inherent in gig work, this research attempts to provide an understanding of whether the gig economy represents a pathway toward empowerment and opportunity, or a new form of labour vulnerability in the modern economy.

Findings

The study covered a total of 50 respondents engaged in various forms of gig work in the Hojai area, which includes e-rickshaw drivers, delivery personnel, house-helps, bakers, and electricians. The data were collected to evaluate the balance between benefits and costs

associated with gig employment. The primary indicator used for evaluating financial viability was the benefit–cost ratio (BCR), which compares total income earned to the total expenditure incurred. A BCR value greater than 1 indicates profit, equal to 1 represents break-even, and less than 1 reflects a loss in activity. For this purpose, the total benefits (including monetary income, incentives, and flexibility) and costs (fuel, stress, and health-related expenses) were calculated for each worker. The ratio of total benefit to total cost served as a key indicator of the economic viability of gig work. Out of the 50 gig workers surveyed, 43 workers exhibited a benefit–cost ratio greater than 1, indicating that their perceived or actual benefits outweighed their costs, 3 workers had a ratio equal to 1, which implies a balance between benefits and costs, 4 workers had a ratio less than 1, suggesting that their incurred costs exceeded the benefits derived from gig work. This distribution reveals that while the majority of gig workers find their work economically worthwhile, a small segment experiences marginal or negative returns, largely due to perishable stock, electricity consumption, fuel cost, high stress, health-related expenditures. The average monthly income of E-rickshaw drivers ranged between ₹9,000 and ₹30,000. The upper limit of this range often included earnings from supplementary activities such as short-distance goods delivery or participation in wedding bands, which they could undertake due to the flexible nature of their work. Their benefit–cost ratios varied between 2.3 and 10.5, with an average close to 4.2. This consistently favourable ratio implies that e-rickshaw driving continues to be one of the most rewarding gig activities in the study area. Drivers with higher ratios operated in areas with stable passenger demand. They also responded that rising battery and electricity costs were beginning to erode their profit margins, emphasizing the need for cost-effective charging facilities. Delivery workers also displayed strong economic returns, with monthly incomes between ₹15,000 and ₹28,000 and benefit–cost ratios ranging from 1.6 to 9.33 (average about 3.6). The higher end of this income range often included earnings from additional part-time work, part-time job at stationery stores, night guard etc., made possible by the flexible timing of delivery work. Consistent demand for food and parcel deliveries has made this sector particularly profitable. Nonetheless, participants reported that long working hours, erratic order volumes, and weather-related disruptions affected their physical and mental well-being. Despite these challenges, the monetary benefits consistently outweighed costs, confirming that delivery work remains one of the most lucrative gig categories. House-helps earned between ₹4,000 and ₹13,000 per month, with benefit–cost ratios ranging from 0.86 to 6.66 and an average around 3.3. The upper range reflects cases where house-helps supplemented their main income by engaging in occasional cooking, babysitting, or laundry work for other households—tasks they could take up due to the flexible and part-time nature of their employment. Although wages were low, the minimal capital requirements and absence of transport or maintenance costs contributed to positive returns. Electricians earned between ₹3,500 and ₹14,000 per month, with benefit–cost ratios generally ranging from 1 to 5. The higher end of this income range typically included small repair jobs or side work undertaken during off-peak hours, reflecting the flexible structure of their trade. Their profitability is closely tied to seasonal and construction-related demand, which spikes during festive or housing development periods. Occupational hazards and irregular

work opportunities contribute to income instability, but low fixed costs and skill-based demand support their sustainability. Bakers showed the greatest variation in results. Income ranged from ₹3,000 to ₹30,000, and hence benefit–cost ratios fluctuated from as low as 0.43 to a maximum of 1.6. Income among bakers show considerable variation because while many are able to scale up their operations, bakers who are just starting out tend to earn less. The case of bakery work is somewhat different from other types of gig employment, as bakers often face high costs that can sometimes outweigh their revenue. This is due to the perishable nature of raw materials and additional logistics expenses. Some bakers reported experiencing losses when products became spoiled during long-distance delivery to customers.



Challenges behind gig workers

Gig workers across various fields—such as e-rickshaw drivers, delivery personnel, house-help, bakers, electricians —face numerous constraints and challenges that affect their income stability, job satisfaction, and overall livelihood. One of the most significant challenges is income insecurity. Since gig work is often based on demand, workers have no guaranteed earnings. E-rickshaw drivers, for example, depend heavily on passenger flow, weather conditions, and competition, which fluctuate daily. Another major issue is the lack of social security and employment benefits. Most gig workers do not receive benefits like health insurance, paid leave, or retirement provisions, leaving them vulnerable during illness or emergencies. High operational and maintenance costs also pose a serious burden. Vehicle-based gig workers—such as e-rickshaw drivers and delivery boys—spend a large share of their income on fuel. Similarly, small-scale service providers like bakery incur costs from perishable raw materials, while their income remains uncertain due to volatile demand. In addition, technological disruptions and competition have made survival harder for traditional gig workers. App-based systems offering cheaper alternatives, customer ratings and algorithmic control are another emerging challenge to the traditional gig economy. While it is a boon to both customers and drivers, it also possesses

some disadvantages as the workers on online platforms are often evaluated through ratings, which can unfairly affect their future work opportunities and income, creating constant psychological pressure. Electricians often experience increased demand during festive periods or times of heightened construction activity, whereas during off-seasons, the availability of work tends to decline substantially, which leads to irregular income patterns and employment instability. In addition, workplace exploitation remain major concerns. Many domestic workers operate without written agreements, leaving them susceptible to unfair treatment, arbitrary termination, or underpayment. Gig workers also face occupational hazards and safety issues. Online delivery personnel and drivers are often exposed to traffic accidents, harsh weather, and long working hours. This is because of features such as quick delivery within 15 mins or 30 mins. Finally, financial exclusion and lack of institutional support make it difficult for these workers to access loans or credit. Since gig income is informal and unrecorded, banks often deny them financial assistance, limiting their ability to expand or upgrade their services.

Thus, gig workers across all sectors face a combination of economic insecurity, lack of benefits, high maintenance costs, technological disruption, rating pressure, safety risks, and financial exclusion. These challenges make gig work unstable and stressful, despite its promise of flexibility and independence.

Policy and recommendations

Based on the field data collected from 50 gig workers in Hojai several critical challenges have been identified. These workers face a combination of fluctuating incomes, rising operating costs, irregular demand, lack of institutional support, and almost no access to social protection schemes. In light of these findings, a set of targeted policy recommendations can be proposed to enhance the livelihood prospects and security of gig workers in Hojai.

To begin with, income stabilization and reduction of operating costs are among the most urgent priorities. E-rickshaw drivers, delivery workers, and vehicle operators in particular reported that fuel, maintenance, and battery expenses often consumed a large share of their monthly income. To address this, the district administration could introduce fuel or electricity subsidies for registered e-rickshaw and delivery workers, implemented through the District Transport Department. Establishing low-cost charging and maintenance stations under public–private partnerships would further reduce vehicle downtime and operational expenses. Additionally, introducing a daily wage floor for gig workers—similar to the Minimum Wage Act—through collaboration between local trade unions and municipal authorities could ensure a more stable income during periods of low customer demand.

Equally important is the need for social protection and institutional recognition. Ensuring mandatory registration on the e-Shram Portal would make them eligible for state and national welfare schemes. The District Labour Office could issue worker identity cards for verified local gig workers, which would enhance their legitimacy and protection. Forming community-based welfare associations or unions could allow them to collectively negotiate fair rates and raise grievances when needed.

One of the major causes behind the rapid rise of gig and precarious employment is the informalization of the workforce, wherein employers deliberately reduce working hours or hire workers on flexible, task-based contracts to avoid providing formal employment benefits. This process has led to a situation where even highly productive workers are deprived of job security, social protection, and stable incomes. While complete formalization of all workers is an ideal goal, it is not always feasible. Therefore, a more pragmatic solution is desirable.

So, what can be done is, employment relationships can be categorized along a scale rather than being strictly formal or informal. For instance, workers who engage in fully demand-based tasks with limited or irregular hours—such as freelance graphic designers or part-time app-based service providers—may remain in the semi-formal category but should still receive basic protections, including minimum wage guarantees, accident insurance, and social security contributions. Conversely, workers who provide continuous or regular services to a particular company—such as e-rickshaw drivers contracted to a platform, delivery personnel working full shifts, or tutors teaching regularly through a single app or in an organisation—should be recognized as formal employees and entitled to benefits like paid leave, pension, and healthcare coverage.

This, to some extent, can prevent employers from exploiting loopholes in labour laws and ensures that workers contributing substantially to a company's operations are not denied formal recognition.

References

De Stefano, V. (2016). The rise of the "just-in-time workforce": On-demand work, crowdwork, and labor protection in the "gig economy." *Comparative Labor Law & Policy Journal, 37*(3), 471–504.

Kässi, O., & Lehdonvirta, V. (2018). Online labour index: Measuring the online gig economy for policy and research. *Technological Forecasting and Social Change*, 137, 241–248.

Codagnone, C., Abadie, F., & Biagi, F. (2016). The future of work in the 'sharing economy'. *Market efficiency and equitable opportunities or unfair precarisation.*

Friedman, G. (2014). Workers without employers: shadow corporations and the rise of the gig economy. *Review of keynesian economics*, 2(2), 171-188.

Wood, A. J., Graham, M., Lehdonvirta, V., & Hjorth, I. (2019). Good gig, bad gig: autonomy and algorithmic control in the global gig economy. *Work, employment and society*, 33(1), 56-75.

Berg, J., Furrer, M., Harmon, E., Rani, U., & Silberman, M. S. (2018). Digital labour platforms and the future of work: Towards decent work in the online world. *ILO*.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

Hennink, M. M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine, 292*, 114523. https://doi.org/10.1016/j.socscimed.2021.114523

Hogg, R. V., McKean, J. W., & Craig, A. T. (2013). Introduction to mathematical statistics. *Pearson Education India*.

Mason, M. (2010, August). Sample size and saturation in PhD studies using qualitative interviews. In *Forum qualitative Sozialforschung/Forum: qualitative social research* (Vol. 11, No. 3). https://doi.org/10.17169/fqs-11.3.1428

VanVoorhis, C. W., & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. Tutorials in quantitative methods for psychology, 3(2), 43-50. https://doi.org/10.20982/tqmp.03.2.p043