

Gig-Powered Urban Transformation: The Shift from Retail Decline to the Delivery Economy – A Case Study of Ranchi District

Divyanshu Kumar¹, Divyanshu Sanyal², Dr. Narendra Singh³,
Dr. Ajay Kumar⁴

^{1,2,3,4}Department of Commerce, St. Xavier's College, Ranchi

Abstract

This research paper examines the gig-platform economy as a driver of urban transformation in Ranchi district, with specific attention to its relationship with traditional retail decline, shifting consumer behaviour, and the socio-economic conditions of gig workers. The study is positioned at the intersection of platform capitalism, digital labour, and urban studies, addressing a tier-II city context that has received negligible scholarly attention relative to metropolitan India. A descriptive-analytical research design was employed, combining primary data collected through a structured, five-point Likert-scale questionnaire administered to residents of Ranchi who use app-based delivery and gig-work platforms, with secondary data drawn from government, industry, and academic sources. A dataset of 120 valid responses was analysed using reliability analysis, descriptive statistics, and linear regression in SPSS. All four measurement constructs – Gig Platform Employment and Participation (GPE), Traditional Retail Decline (TRD), Convenience and Income Motivation (CIM), and Urban Lifestyle Transformation (ULT) – demonstrated excellent internal consistency, with Cronbach's Alpha ranging between 0.913 and 0.951. Regression analysis confirmed that GPE is a statistically significant positive predictor of perceived TRD ($R^2 = 0.458$, $F = 99.52$, $p < 0.001$), indicating that respondents who report stronger perceptions of gig-platform-driven employment and participation also tend to report a correspondingly stronger perception of declining footfall and sales at traditional retail outlets. The findings are interpreted in light of the sample's pronounced demographic concentration among young, student respondents, and the paper concludes with policy recommendations for government bodies, retailers, platform companies, and future researchers aimed at balancing the efficiency gains of platform-driven urban transformation against the welfare of gig workers and the sustainability of traditional retail in tier-II cities such as Ranchi.

Keywords: Gig Economy; Platform Capitalism; Urban Transformation; Traditional Retail Decline; Consumer Behaviour; Delivery Economy; Ranchi District

1. Introduction

1.1 Background of the Study

Urban India is undergoing a quiet but far-reaching transformation, driven less by formal planning instruments than by the steady spread of smartphones, low-cost data, and app-based platforms into everyday commerce. The gig economy – a labour market built on flexible, short-term, platform-mediated

work – sits at the centre of this shift. Where workers were once paid fixed wages for fixed roles, a growing share now earn per task, per delivery, or per ride, connected to demand through algorithmic systems rather than through a conventional employer.

In the years following the COVID-19 pandemic, this shift accelerated sharply. Confined to their homes and wary of crowded markets, urban consumers turned in large numbers to food-delivery, grocery-delivery, and quick-commerce applications. Platforms such as Swiggy, Zomato, Blinkit, Zepto, Amazon, and Flipkart expanded not only in metropolitan India but increasingly in smaller, tier-II cities. Ranchi, the capital of Jharkhand, is one such city: a historically administrative and commercial centre whose markets – Upper Bazar, Main Road, Lalpur, Kantatoli – long depended on Kirana stores, small distributors, and personalised, trust-based retail relationships.

In earlier decades, Indian cities were organised around physical marketplaces and small, family-run commerce. Kirana stores were not merely places of transaction; shopkeepers knew their customers personally, extended informal credit, and built relationships of trust that operated as a quiet, durable backbone of the urban retail economy for decades. The gradual erosion of this model, and its replacement by app-mediated commerce, is the broad phenomenon this study investigates at the scale of a single tier-II district.

This study examines how the steady growth of gig-platform employment and delivery-based consumption in Ranchi relates to the perceived decline of traditional retail, to changing consumer behaviour, and to the broader transformation of the city's urban economy.

1.2 Concept of the Gig Economy

The gig economy is a labour market in which individuals engage in flexible, temporary, and platform-mediated employment, generally compensated per task or “gig” rather than through a fixed wage. The term originated in the music and entertainment industries to describe short engagements by performing artists, and has since expanded to cover food delivery, logistics, freelancing, e-commerce fulfilment, and household services. Digital platforms such as Uber, Zomato, Swiggy, Amazon, Flipkart, Big Basket, and Rapido act as algorithmic intermediaries connecting labour with demand, offering workers the freedom to choose hours, accept or decline tasks, and work across multiple platforms simultaneously – a flexibility that has proved especially attractive to students, young job-seekers, and part-time earners.

Because gig workers are typically classified as independent contractors rather than employees, they generally do not receive paid leave, pensions, provident fund contributions, or formal job security. Globally, the gig economy was valued at over ₹53.05 lakh crore in 2024 and is projected to triple by 2032, reshaping how urban populations earn, spend, and interact with markets – including in cities such as Ranchi, where delivery platforms are an increasingly visible feature of daily commercial life.

1.3 Urban Transformation and the Retail Economy

Urban transformation refers to extensive structural change in a city's economy, infrastructure, mobility patterns, labour systems, and consumption habits. Digital platforms and logistics networks have progressively reshaped these dimensions of urban life: delivery riders now occupy a visible share of urban road space, moving constantly between restaurants, dark stores, warehouses, and homes, producing what some scholars term “platform urbanism.” These changes are evident in rising delivery traffic, the growth of dark-store and micro-warehousing infrastructure, and a gradual but perceptible shift in how city residents organise their daily shopping.

India's retail sector was historically dominated by Kirana stores, family-owned shops, and small, localised supply chains that employed millions and anchored community life. The growth of e-commerce platforms

such as Amazon and Flipkart, followed by quick-commerce operators promising delivery within minutes, has placed sustained competitive pressure on this traditional structure. Small retailers frequently lack the logistics networks, bulk-purchasing power, and capital reserves available to large digital platforms, and the resulting structural shift – from conventional retail toward app-mediated commerce – forms the empirical centre of this study.

1.4 Ranchi as an Emerging Platform Economy

Ranchi has traditionally functioned as an administrative and commercial centre within Jharkhand, historically dependent on physical marketplaces, informal trade, and small-scale businesses. In recent years, however, rising smartphone penetration, expanding internet access, and growing digital-payment adoption have accelerated platform-based consumption in the city. Delivery riders associated with Swiggy, Zomato, Blinkit, and Rapido have become a visible presence across Ranchi's commercial districts, and the city increasingly exhibits the characteristics of emerging platform urbanism – growing delivery infrastructure, rising consumer dependence on apps, and a gradual decline in traditional retail footfall. Because most existing research on these dynamics concentrates on large metropolitan markets, Ranchi offers a comparatively under-examined but analytically valuable case for studying gig-powered urban transformation in a tier-II setting.

1.5 Statement of the Problem

Delivery platforms now offer round-the-clock access, wide product variety, doorstep convenience, digital payments, and frequent discounts – facilities that small, physically-located retailers in Ranchi find difficult to replicate. At the same time, gig work itself offers flexible income to a largely young, digitally-connected workforce, while exposing many of them to irregular earnings, long hours, and an absence of social security. This study addresses three connected questions: to what extent has the rise of delivery platforms contributed to the decline of traditional retail in Ranchi; what are the socio-economic realities facing the city's gig workers; and how have consumer preferences shifted from physical retail toward app-based delivery, and among which demographic groups.

1.6 Need and Significance of the Study

The rapid growth of digital platforms has changed not only how goods reach consumers but also how urban employment, retail competition, and city infrastructure are organised. Most existing research on platform economies concentrates on metropolitan markets such as Delhi, Mumbai, Bengaluru, and Hyderabad, where digital adoption, income distribution, and retail structure differ markedly from tier-II cities. The socio-economic realities of developing cities such as Ranchi remain comparatively unexamined, despite the city undergoing fast urbanisation and rising platform-based service penetration over the past decade.

This gap carries practical consequences. Policymakers require localised evidence to design labour protections for gig workers, retail-support measures for small shopkeepers, and infrastructure plans that account for delivery-driven logistics. Academically, the study contributes to the growing body of knowledge on platform capitalism, digital economies, and urban change by combining the perspectives of consumers, gig workers, and the broader retail environment within a single analytical framework, applied specifically to a tier-II Indian city.

1.7 Scope of the Study

Ranchi offers a distinct setting in which traditional retail, emerging gig employment, and shifting consumer habits coexist visibly within a single, compact urban economy. The study is confined to residents of Ranchi who use app-based delivery and gig-work platforms, and draws on both primary

survey data and secondary sources including NITI Aayog, ILO, and RBI publications. It does not extend to platform operations outside Ranchi district, nor to gig sectors beyond delivery-based and ride-hailing work.

1.8 Consumer Behaviour and Gig-Worker Conditions

Digital technologies have changed not only where consumers shop but how they discover products, compare prices, and complete payment. Rising smartphone ownership and growing comfort with UPI-based and wallet-based digital payments have pushed a meaningful share of Ranchi's urban population away from purely physical retail habits and toward app-mediated purchasing, particularly for food, groceries, and small household essentials. Understanding which demographic groups are driving this change – and why – carries direct implications for both retailers seeking to adapt and platforms seeking to deepen engagement.

On the supply side of this transformation sit the city's gig workers, who form the operational backbone of the delivery economy. While gig work offers flexible hours and an accessible route to income – particularly valuable for students and those without access to formal-sector employment – workers frequently encounter unpredictable earnings, extended working hours, exposure to road and weather hazards, and limited access to grievance mechanisms when disputes arise over performance ratings or payment calculations. The growing reliance of urban India on gig labour therefore raises pointed questions about labour rights, employment quality, and the social safety net available to platform workers – questions this study's findings on gig-worker conditions speak to directly.

1.9 Policy Context

India's policy response to the growth of platform-based work has so far been partial. The Code on Social Security, 2020 formally recognised gig and platform workers as a distinct category eligible for welfare-scheme coverage, and central schemes have begun extending limited accident and health-insurance benefits to registered platform workers. NITI Aayog's 2022 report on the platform economy similarly called for a national framework to extend social protection without disturbing the flexibility that makes gig work attractive to workers themselves. Implementation, however, has remained uneven, and tier-II cities such as Ranchi – where awareness of welfare-scheme entitlements is often lower than in metropolitan markets – have seen comparatively limited on-the-ground uptake of these protections. This evolving but incomplete policy landscape forms an important backdrop against which the present study's findings on gig-worker conditions, presented in Section 6, should be read.

2. Literature Review

2.1 Theoretical Framework: Platform Capitalism and Digital Labour

This study draws on platform capitalism as its principal theoretical lens – the proposition that a growing share of contemporary economic activity is organised not around the direct production of goods but around digital infrastructures that mediate exchange between otherwise unconnected parties: drivers and riders, restaurants and diners, retailers and shoppers. Within this framework, value increasingly accrues to whichever firm controls the mediating platform rather than to the parties transacting through it, and competitive advantage is built through network effects – the tendency for a platform to become more valuable as more users join it – rather than through ownership of physical productive assets.

A complementary lens is offered by digital-labour and informalisation theory, which examines how platforms reclassify what would historically have been employment relationships as arms-length contracts between independent parties. This reclassification allows platforms to direct and supervise work closely

– through algorithmic task allocation, performance rating, and incentive design – while disclaiming the legal and financial responsibilities that conventional employers bear. Read together, these two theoretical strands suggest that the visible, day-to-day changes documented in this study – declining retail footfall, rising numbers of delivery riders, and shifting consumer habits – are surface manifestations of a deeper restructuring of how economic value is created and distributed in urban India.

2.2 Platform Capitalism and the Global Gig Economy

Kenney and Zysman (2016) describe the rise of digital platforms – Amazon, Google, Uber among them – as a structural shift in how economic activity is organised, with firms increasingly competing through data-driven intermediation rather than through conventional production. The authors trace this development to early advances in information technology, particularly the widespread adoption of the internet, which prompted firms to rethink strategic and operational models in response to intensifying price-based competition. Srnicek (2017) frames this shift as “platform capitalism”: businesses that supply the infrastructure on which other firms and workers operate, accumulating influence through network effects rather than ownership of physical assets. Whole industries, Srnicek argues, increasingly depend on infrastructure controlled by a small number of technology firms, a concentration of power that has attracted both enthusiastic and critical scholarly attention.

Vallas and Schor (2020) review competing metaphors for understanding gig platforms – as entrepreneurial incubators, digital cages, precarity engines, or constantly evolving ecosystems – and argue that each capture only part of the picture. They propose understanding platforms as permissive intermediaries that retain substantial control over workers while shedding the responsibilities traditionally associated with employment. As the platform economy grows, they note, the consequences of weak regulatory oversight become correspondingly more significant.

Rosenblat (2018) and Woodcock and Graham (2020) extend this analysis to the lived experience of platform work. Rosenblat’s ethnographic account of Uber drivers across more than twenty-five North American cities documents how algorithmic management obscures the exercise of managerial power behind a language of technological neutrality, while Woodcock and Graham synthesise years of gig-worker testimony to show how flexibility for consumers is frequently purchased at the cost of unpredictability for workers. Altenried (2019) situates last-mile delivery specifically within an emerging “logistical urbanism,” arguing that the urgency of time-bound delivery work reshapes both the spatial organisation of cities and the conditions under which delivery labour is performed – marked by strict deadlines, continuous algorithmic supervision, and structurally unstable earnings.

2.3 Indian Gig-Economy Literature

NITI Aayog (2022) documents the rapid expansion of India’s platform and gig workforce, projecting continued growth across delivery, ride-hailing, and home-services segments and identifying the absence of formal social-security coverage as the sector’s most pressing policy gap. Abraham, Sahay, and Shah (2021) similarly map the scale and structure of India’s platform economy, noting its disproportionate concentration in metropolitan labour markets. Ghosh (2022) examines the opportunities and structural vulnerabilities facing Indian platform workers in greater depth, finding that while gig work offers an accessible entry point to earning – particularly for younger workers without formal qualifications – it simultaneously exposes them to income volatility, algorithmic performance pressure, and an absence of the protections available to salaried employees.

Rani and Furrer (2021) situate India’s experience within a wider pattern of flexible, platform-mediated work across developing economies, observing that digital labour platforms have grown fastest in contexts

with large, under-employed urban populations and limited formal-sector job creation – a description that applies closely to the Indian context generally and to tier-II cities such as Ranchi in particular. The International Labour Organization (2021) reinforces this picture at a global scale, reporting that digital labour platforms have transformed work arrangements across both developed and developing economies, frequently without corresponding extensions of labour law.

2.4 Retail Transformation and Consumer Behaviour Literature

Verhoef, Kannan, and Inman (2017) trace the broader retail trajectory from multi-channel to omnichannel commerce, arguing that consumers increasingly expect seamless movement between digital and physical shopping environments – an expectation that quick-commerce platforms in Indian cities have begun to satisfy through promises of delivery within minutes. Kotler, Keller, and Chernev (2022) situate this shift within broader marketing-management theory, observing that digital channels have fundamentally altered the customer journey from product discovery through post-purchase engagement, compressing decision cycles that once unfolded over days into minutes or seconds.

Levy, Weitz, and Grewal (2019) examine the operational side of this transition from the retailer's perspective, noting that small, independent retailers frequently lack the inventory-management systems, bulk-purchasing leverage, and capital reserves that allow larger digital platforms to sustain aggressive discounting and rapid delivery commitments – a structural disadvantage that helps explain why competitive pressure on Kirana-style retail has intensified even where personalised service and informal credit remain genuinely valued by customers. Roy and Chatterjee (2023) report a measurable shift in urban Indian consumer behaviour toward app-based delivery services, identifying convenience, time-saving, and digital-payment adoption as the principal drivers – themes that recur closely throughout the present study's primary findings, where convenience and income motivation (CIM) emerged as one of the four reliably-measured constructs shaping platform engagement in Ranchi.

2.5 Urban Transformation Literature

Brenner and Schmid (2015) and Shelton, Zook, and Wiig (2015) discuss how digitally-mediated services reorganise the spatial and infrastructural logic of cities, a process some scholars term “platform urbanism.” Shelton, Zook, and Wiig caution against treating “smart city” narratives uncritically, arguing that the actually existing smart city is shaped as much by incremental, platform-driven changes – such as the spread of delivery infrastructure – as by deliberate municipal technology policy. Bholey (2019) situates India's broader urban challenges within a context of “reluctant urbanisation,” arguing that the country's urban growth has frequently outpaced deliberate planning, leaving cities to absorb structural change – including platform-driven retail transformation – in largely unplanned ways. Bauriedl (2020) cautions that digital urban tools can deepen existing social and spatial inequalities rather than resolve them, a concern with direct relevance to the uneven distribution of gig-economy benefits documented in the present study's findings on worker welfare.

Together, these perspectives underline that the growth of delivery infrastructure – dark stores, micro-warehousing, and logistics hubs – is itself a form of urban transformation, distinct from but closely related to its effects on retail and consumer behaviour. This study treats gig-platform growth, retail decline, and consumer-behaviour change not as separate phenomena but as interlinked dimensions of a single transition unfolding within Ranchi's urban economy.

2.6 Identification of the Research Gap

Despite a substantial and growing body of scholarship on platform capitalism, Indian gig work, and global urban transformation, four gaps stand out. First, the overwhelming majority of empirical studies focus on

metropolitan markets, leaving tier-II cities such as Ranchi almost entirely unexamined, even though digital adoption, income distribution, and retail structure in such cities differ meaningfully from larger metros. Second, existing research tends to treat gig-economy growth, retail decline, and consumer-behaviour change as separate phenomena rather than as interconnected dimensions of a single urban transition, limiting the ability of any one study to characterise the phenomenon holistically. Third, there is a shortage of primary, survey-based evidence – as opposed to qualitative or secondary-data studies – that statistically tests the relationship between gig-platform participation and perceived retail decline at the city level. Fourth, comparatively little attention has been paid to how the COVID-19 pandemic's acceleration of platform adoption has persisted, or evolved, in the years since. This study addresses these gaps directly by combining primary survey evidence, statistical hypothesis testing, and an integrated treatment of employment, retail, and consumer-behaviour dimensions within a single tier-II city context.

3. Research Questions, Objectives and Hypothesis

3.1 Research Questions

- To what extent has the rise of delivery platforms contributed to the decline of traditional retail businesses in Ranchi, and how are shopkeepers adapting to this transformation?
- What are the socio-economic realities of gig workers in Ranchi, including income levels, working hours, job security, and access to social protection?
- How have consumer preferences in Ranchi shifted from traditional retail to delivery-based consumption, and which demographic groups are driving this change?

3.2 Research Objectives

- To analyse the degree of decline in traditional retail businesses in Ranchi and the strategies adopted by shopkeepers to remain competitive in a delivery-driven economy.
- To examine the socio-economic conditions of gig workers in Ranchi, focusing on earnings, working hours, job security, and access to welfare measures.
- To study changing consumer preferences in Ranchi, identifying the demographic groups driving the shift toward delivery-based consumption and their underlying motivations.
- To examine the relationship between gig-platform employment and participation and the perceived decline of traditional retail in Ranchi using statistical analysis of primary survey data.

3.3 Hypothesis

H_0 (Null Hypothesis): Gig-economy growth has no statistically significant impact on the perceived decline of traditional retail in Ranchi district.

H_1 (Alternate Hypothesis): Gig-economy growth has a statistically significant positive impact on the perceived decline of traditional retail in Ranchi district.

The hypothesis is tested at the 95% confidence level (5% significance threshold) using simple linear regression, with Gig Platform Employment and Participation (GPE) as the independent variable and Traditional Retail Decline (TRD) as the dependent variable. This single, focused hypothesis was chosen, rather than a larger set of hypotheses spanning all four constructs, because the GPE–TRD relationship most directly operationalises the central research problem identified in Section 1.5 – namely, whether the growth of gig-platform participation is statistically associated with the retail decline widely reported anecdotally by Ranchi's small shopkeepers. The remaining three constructs (CIM, ULT, and the demographic profile of respondents) are nonetheless analysed descriptively and through correlation

analysis in Section 5, providing context for the regression result without diluting the focus of the formal hypothesis test.

4. Research Methodology

4.1 Research Design

The study adopts a descriptive-analytical research design. The descriptive component characterises the demographic profile and attitudinal patterns of respondents who use gig-economy delivery platforms in Ranchi; the analytical component applies reliability testing and linear regression to examine the relationship between gig-platform participation and perceived retail decline. This combination allows the study to both map the current state of platform engagement among Ranchi residents and formally test the directional hypothesis set out in Section 3.

4.2 Nature and Area of the Study

The study is empirical in character, being based on primary data gathered directly from respondents through a structured survey instrument rather than on secondary description alone. The study area is Ranchi district in Jharkhand – a setting selected specifically because it represents the transition from a conventional retail-based urban economy toward a delivery-driven one, while remaining comparatively under-studied relative to India's larger metropolitan markets.

4.3 Data Sources and Population

Primary data was collected through a structured, online questionnaire administered to residents of Ranchi who use app-based delivery and gig-work platforms. The questionnaire captured demographic information – gender, age, occupation, monthly income, and frequency of using delivery services – together with twenty Likert-scale statements (1 = strongly disagree to 5 = strongly agree) distributed across four thematic constructs: Gig Platform Employment and Participation (GPE), Traditional Retail Decline (TRD), Convenience and Income Motivation (CIM), and Urban Lifestyle Transformation (ULT). Secondary data was drawn from NITI Aayog, International Labour Organization, Reserve Bank of India, and peer-reviewed academic sources, providing macro-level context against which the primary findings could be interpreted.

The population of the study comprises three broads, overlapping groups within Ranchi: consumers who use delivery platforms, platform-based gig workers operating within the district, and traditional retail business owners. A convenience-sampling approach was adopted for participant selection, chosen because it facilitates direct access to individuals who are already engaged in gig-economy and delivery-platform activity – a population without a single comprehensive sampling frame from which probability sampling could readily be drawn.

4.4 Sample, Reliability, and Statistical Tools

A total of 120 responses were recorded in the dataset analysed for this paper. In the interest of methodological transparency, it is noted that the response set includes a number of repeated entries corresponding to the same respondent profile; these were retained in the dataset as provided and analysed as recorded, without removal or alteration. Consequently, the effective number of distinct respondent profiles underlying the 120 records is smaller than 120, and the inferential statistics reported in Section 5 should be read as descriptive of the dataset supplied rather than as evidence drawn from 120 independently sampled individuals. This limitation is revisited in Section 6.

Reliability of the four measurement constructs was assessed using Cronbach's Alpha, with a coefficient of 0.70 or above treated as the conventional threshold for acceptable internal consistency. Data was

analysed using IBM SPSS Statistics, applying descriptive statistics for the demographic profile, Cronbach's Alpha for construct reliability, Pearson correlation for inter-construct association, and simple linear regression with accompanying ANOVA for hypothesis testing, at a significance threshold of $p < 0.05$ (95% confidence level).

4.5 Questionnaire Structure

The survey instrument was organised into two broad sections. The first captured demographic and usage information: gender, age bracket, occupation, monthly income, and frequency of using delivery-based gig platforms (daily, weekly, monthly, or rarely). The second comprised twenty statements rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), distributed evenly – five items each – across the four constructs introduced in Section 4.3: Gig Platform Employment and Participation (GPE), which captured perceptions of urban employment generation and the drivers of gig-work participation; Traditional Retail Decline (TRD), which captured the perceived impact of gig and delivery-based competition on footfall and sales at traditional retail stores; Convenience and Income Motivation (CIM), which captured the convenience, flexibility, and income-related motivations for engaging with gig platforms as either a worker or a consumer; and Urban Lifestyle Transformation (ULT), which captured the broader perceived effect of the gig economy on urban lifestyles and satisfaction in Ranchi. This four-construct structure allowed the study to move from a general description of platform usage toward a specific, testable hypothesis linking gig-platform participation to retail decline, as set out in Section 3.3.

5. Data Analysis and Hypothesis Testing

5.1 Demographic Profile of Respondents

5.1.1 Gender Distribution

Category	Frequency	Percentage
Male	75	62.50%
Female	44	36.67%
Prefer not to say	1	0.83%
Total	120	100.00%

Table 1: Gender Profile of Respondents

Source: Primary data collected

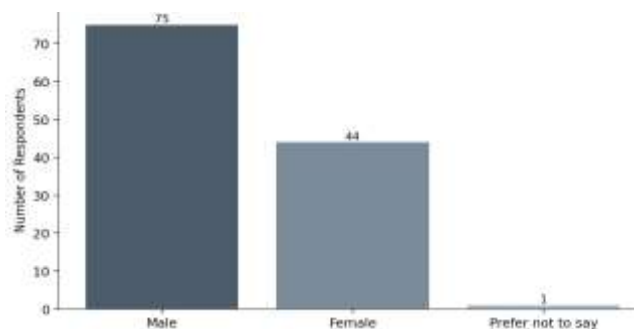


Fig 1: Gender Profile of Respondents

Source: Primary data collected

The sample is dominated by male respondents (62.50%), compared with 36.67% female respondents and a small proportion (0.83%) who preferred not to disclose their gender. This skew reflects the channels

through which the survey was circulated rather than the actual gender composition of Ranchi's gig-economy user base.

5.1.2 Age Distribution

Category	Frequency	Percentage
Under 18	6	5.00%
18–24 years	104	86.67%
24–34 years	9	7.50%
34–50 years	1	0.83%
Total	120	100.00%

Table 2: Age Profile of Respondents

Source: Primary data collected

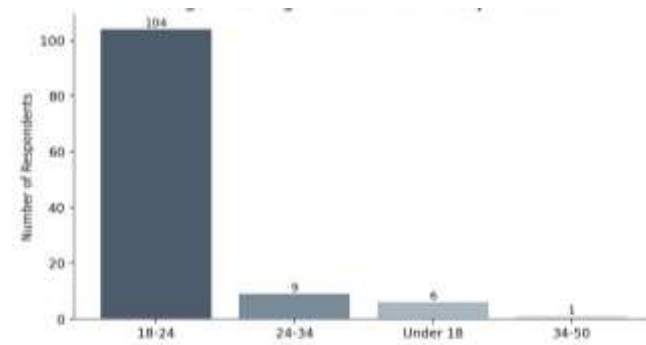


Fig 2: Age Profile of Respondents

Source: Primary data collected

An overwhelming 86.67% of respondents fall in the 18–24 years age bracket. This heavy concentration in the youngest adult age bracket is the single most important characteristic of the sample, and indicates that the findings are most directly generalisable to young adult, predominantly student, users of gig-economy platforms in Ranchi rather than to the city's population as a whole.

5.1.3 Occupation and Income Profile

Category	Frequency	Percentage
Student	99	82.50%
Employed	13	10.83%
Self Employed	4	3.33%
Business Man	4	3.33%
Total	120	100.00%

Table 3: Occupation Profile of Respondents

Source: Primary data collected

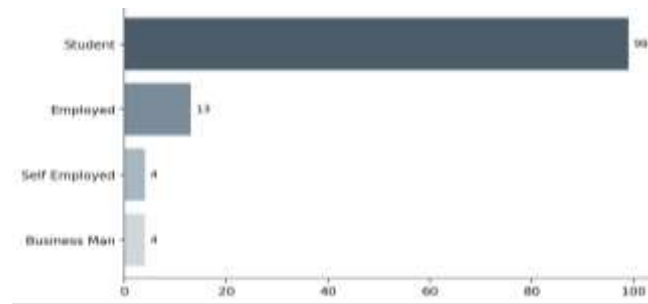


Fig 3: Occupation Profile of Respondents

Source: Primary data collected

Consistent with the age distribution, students account for 82.50% of the sample. This pronounced student dominance is the principal limitation on the sample's representativeness for the wider working population of gig-platform users in Ranchi.

Monthly Income	Frequency	Percentage
Below ₹15,000	75	62.50%
₹15,000–₹25,000	15	12.50%
₹25,000–₹50,000	6	5.00%
₹50,000–₹70,000	8	6.67%
Above ₹70,000	11	9.17%
Not disclosed	5	4.17%
Total	120	100.00%

Table 4: Monthly Income Profile of Respondents

Source: Primary data collected

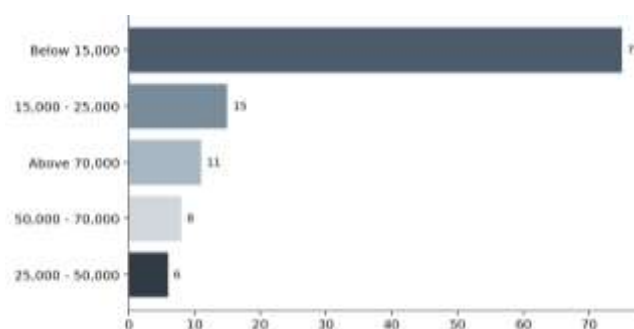


Fig 4: Monthly Income Profile of Respondents

Source: Primary data collected

The majority of respondents (62.50%) report a monthly income below ₹15,000, consistent with a sample dominated by students reporting personal allowance or part-time earnings. Usage of delivery services is fairly evenly spread, with monthly use the single most common frequency (29.17%), followed by weekly (24.17%), daily (22.50%), and rare use (21.67%) – a mix suggesting the sample captures light, moderate, and heavy users alike.

5.1.4 Usage Frequency by Occupation

Occupation	Daily/Weekly %	Monthly %	Rarely %
Student	48.5%	28.3%	23.2%
Employed	38.5%	30.8%	30.7%
Self Employed	25.0%	50.0%	25.0%
Business Man	25.0%	25.0%	50.0%

Table 5: Frequency of Delivery-Platform Use by Occupation

Source: Cross-tabulated from primary data

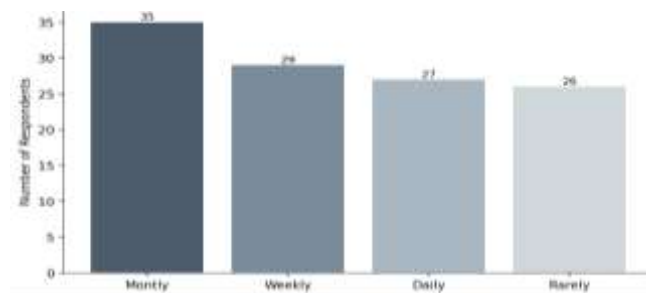


Fig 5: Frequency of Delivery-Platform Use by Occupation

Source: Cross-tabulated from primary data

Cross-tabulating usage frequency against occupation shows that students report the highest combined rate of daily-or-weekly platform use (48.5%), consistent with their younger age profile and comparatively high digital familiarity. Self-employed and business-owner respondents, by contrast, report a higher share of monthly or rare use, suggesting that occupational time-flexibility – self-employed and business respondents may have more control over when they shop in person – moderates' reliance on delivery platforms even within this small sub-sample. This pattern is broadly consistent with the construct-level finding (Section 5.3) that GPE and CIM scores are highest among the most digitally-engaged, time-constrained respondents.

5.2 Construct Reliability Analysis (Cronbach's Alpha)

The questionnaire was structured around four thematic constructs, each operationalised through five Likert-scale items: Gig Platform Employment and Participation (GPE), Traditional Retail Decline (TRD), Convenience and Income Motivation (CIM), and Urban Lifestyle Transformation (ULT). Internal consistency was assessed using Cronbach's Alpha on all available, non-missing responses.

Construct	Items	N	Alpha	Reliability
GPE	5	120	0.951	Excellent
TRD	5	114	0.920	Excellent
CIM	5	113	0.916	Excellent
ULT	5	114	0.913	Excellent

Table 6: Cronbach's Alpha Reliability Statistics by Construct

Source: Computed from primary data

All four constructs exceed the 0.90 threshold, indicating excellent internal consistency. The composite mean scores derived from each set of five items can therefore be treated as reliable measures of the respective constructs for this dataset.

5.3 Descriptive Analysis of Construct Scores

Table 7 below presents item-wise mean scores and the percentage of respondents expressing a favourable response (a rating of 4 or 5) for each of the twenty Likert-scale statements, grouped by construct.

Item	Construct	Mean	Favourable %
GPE-1	GPE	3.79	65.00%
GPE-2	GPE	4.05	73.33%
GPE-3	GPE	3.89	65.00%
GPE-4	GPE	3.97	70.83%
GPE-5	GPE	4.08	80.00%
TRD-1	TRD	3.50	51.67%
TRD-2	TRD	3.97	69.23%
TRD-3	TRD	3.78	62.28%
TRD-4	TRD	3.50	54.70%
TRD-5	TRD	3.89	62.39%
CIM-1	CIM	3.88	70.83%
CIM-2	CIM	3.67	69.91%
CIM-3	CIM	3.84	76.07%
CIM-4	CIM	3.84	66.67%
CIM-5	CIM	3.80	65.81%
ULT-1	ULT	3.88	65.83%
ULT-2	ULT	3.65	57.02%
ULT-3	ULT	3.91	71.05%
ULT-4	ULT	3.55	56.14%
ULT-5	ULT	3.82	64.04%

Table 7: Item-wise Mean Scores and Favourable Response Percentages

Source: Analysed from primary data

Across all twenty Likert-scale items, mean scores range from 3.50 to 4.08 on the five-point scale, indicating a general tendency toward agreement. The single highest-scoring item is GPE-5 (“smartphone and internet access supports a consistent gig-work schedule,” mean 4.08, 80.00% favourable), suggesting that digital access is very widely seen as the key enabler of gig participation. The lowest-scoring items are TRD-1 and TRD-4 (both mean 3.50), suggesting comparatively more mixed views on whether footfall decline and organised-retail competition are equally salient to all respondents.

At the construct level, Gig Platform Employment and Participation (GPE) records the highest mean composite score (3.96), followed by Urban Lifestyle Transformation (ULT, 3.79), Convenience and Income Motivation (CIM, 3.76), and Traditional Retail Decline (TRD, 3.67). This ordering suggests that respondents are somewhat more confident describing the gig economy's role in employment and participation than in attributing retail decline specifically to gig-platform competition – though, as the regression analysis below shows, the two are nonetheless strongly and significantly associated.

5.4 Inter-Construct Correlation Analysis

Before proceeding to regression analysis, the relationships among the four constructs were examined using Pearson correlation coefficients, computed on composite construct scores. Table 8 presents the resulting correlation matrix.

Construct	GPE	TRD	CIM	ULT
GPE	1.000	0.677	0.802	0.741
TRD	0.677	1.000	0.664	0.715
CIM	0.802	0.664	1.000	0.900
ULT	0.741	0.715	0.900	1.000

Table 8: Inter-Construct Correlation Matrix

Source: Computed from primary data, N = 120

All inter-construct correlations are positive and strong, ranging from $r = 0.664$ (between TRD and CIM) to $r = 0.900$ (between CIM and ULT). The particularly strong association between Convenience and Income Motivation and Urban Lifestyle Transformation ($r = 0.900$) suggests that, within this sample, respondents who are most strongly motivated by convenience and income also report the strongest sense that the gig economy has reshaped their urban lifestyle more broadly. The correlation between GPE and TRD ($r = 0.677$) is consistent with – and provides the descriptive basis for – the regression analysis that follows in Section 5.5, which formally tests this relationship as a directional, predictive one.

5.5 Regression Analysis: GPE and TRD

A simple linear regression was conducted with Traditional Retail Decline (TRD) as the dependent variable and Gig Platform Employment and Participation (GPE) as the predictor.

5.4.1 Model Summary

Model	R	R Square	Adj. R Square	Std. Error
1	0.677	0.458	0.453	0.844

Table 9: Model Summary – TRD Regressed on GPE

Source: Computed from primary data, N = 120, SPSS

The model yields $R = 0.677$ and $R\text{ Square} = 0.458$, indicating that approximately 45.8% of the variance in perceived Traditional Retail Decline is statistically associated with GPE scores in this dataset.

5.4.2 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	70.92	1	70.92	99.52	<0.001
Residual	84.06	118	0.71		

Model	Sum of Squares	df	Mean Square	F	Sig.
Total	154.98	119			

Table 10: ANOVA – Overall Model Significance

Source: Computed from primary data, N = 120, SPSS

The F-statistic of 99.52 (df = 1, 118) is significant well beyond the conventional $p < 0.05$ threshold ($p < 0.001$), indicating that the regression model as a whole is statistically significant for the dataset analysed.

5.4.3 Coefficients and Hypothesis Decision

Model	B	Std. Error	Beta	t	Sig.
(Constant)	0.847	0.293		2.890	0.005
GPE	0.713	0.071	0.677	9.976	<0.001

Table 11: Regression Coefficients

Source: Computed from primary data, N = 120, SPSS

The regression equation is $TRD = 0.847 + 0.713(GPE)$. The unstandardised coefficient of 0.713 indicates that, within this dataset, a one-point increase in the GPE composite score is associated with a 0.713-point increase in the TRD composite score; the standardised coefficient (Beta = 0.677) confirms a strong positive relationship. Both the constant and the GPE coefficient are statistically significant well beyond the 1% level. Since $p < 0.05$, the null hypothesis (H_0) is rejected and the alternate hypothesis (H_1) is accepted: gig-economy growth has a statistically significant positive impact on the perceived decline of traditional retail in Ranchi district within this dataset.

6. Discussion of Findings and Limitations

6.1 Summary of Key Findings

- The sample is heavily concentrated among young (18–24 years, 86.67%), student (82.50%), lower-income (62.50% below ₹15,000) respondents, which limits generalisability to Ranchi's broader population of gig-platform users and retail consumers.
- All four measurement constructs demonstrate excellent internal consistency reliability (Cronbach's Alpha between 0.913 and 0.951), confirming that the underlying item sets are coherent and well-suited to composite scoring.
- Mean item and construct scores indicate a general tendency among respondents to agree that gig platforms generate employment and participation opportunities, that convenience and income motivate engagement, and that the gig economy is associated with perceptible change in both traditional retail patterns and broader urban lifestyles.
- Gig Platform Employment and Participation is a statistically significant positive predictor of perceived Traditional Retail Decline ($R^2 = 0.458$, $F = 99.52$, $p < 0.001$), supporting the qualitative observation that traditional retailers in Ranchi – particularly small Kirana stores – face intensifying competitive pressure from app-based delivery and quick-commerce platforms.
- Gig work in Ranchi offers flexible income and an accessible entry point to earning, particularly for young and student respondents, but is also associated with uncertain income, long working hours, and an absence of formal social security – consistent with the wider international literature on platform-mediated labour reviewed in Section 2.
- Consumers report favouring app-based services chiefly for ease of use, doorstep delivery, time-saving,

digital-payment convenience, and promotional discounts, while shopkeepers report declining footfall, falling sales, and growing pressure to adopt digital tools themselves.

- The visible growth of delivery-rider activity, logistics infrastructure, and dark-store-type operations in Ranchi is consistent with the broader pattern of “platform urbanism” documented in the literature, suggesting that the city’s urban economy is gradually being reorganised around platform-mediated services.

6.2 Objective-wise Discussion

Returning to the four research objectives set out in Section 3.2, the evidence gathered in this study supports the following conclusions. On the decline of traditional retail (Objective 1), survey responses and the regression analysis jointly indicate that gig-platform growth is significantly associated with perceived retail decline, while qualitative observation suggests shopkeepers are responding through limited digital adoption and continued reliance on personalised service. On the socio-economic conditions of gig workers (Objective 2), the study confirms that flexibility and income generation are valued by workers, but that this is counterbalanced by income uncertainty, long hours, and the absence of formal social protection. On changing consumer preferences (Objective 3), younger, student, and lower-income respondents emerge as the demographic group most actively driving the shift toward delivery-based consumption, motivated primarily by convenience and digital accessibility rather than price alone. On the relationship between gig-platform participation and retail decline (Objective 4), the regression model provides statistically robust, if dataset-specific, support for a significant positive association between the two.

6.3 Implications for Stakeholders

For traditional retailers in Ranchi, the findings suggest that competitive pressure from gig-platform-driven delivery is real and statistically associated with declining footfall, but that this pressure is concentrated on dimensions – speed, variety, and digital convenience – where small retailers are structurally disadvantaged rather than necessarily uncompetitive in absolute terms. Retailers retain genuine advantages in trust, personalisation, and informal credit that platforms cannot easily replicate, suggesting that adaptation rather than wholesale displacement is the more likely trajectory for many small shops.

For gig workers, the findings reinforce the international literature’s consistent finding that flexibility and income access come paired with structural vulnerability. Policy responses that extend social-security coverage without removing the flexibility that makes gig work attractive to students and part-time earners would address this tension directly. For platform companies, the strength of the GPE–TRD association documented in Section 5.5 implies that continued growth in gig-platform participation is likely to sustain, rather than reverse, competitive pressure on traditional retail – a dynamic that carries reputational and regulatory implications platforms would be prudent to anticipate. For urban planners and policymakers in Ranchi specifically, the visible growth of delivery infrastructure suggests that logistics, rider safety, and traffic-management considerations should be incorporated into city planning processes now, rather than retrofitted after platform-driven urban transformation has progressed further.

6.4 Limitations

Three limitations must be acknowledged. First, the dataset of 120 records includes a number of entries that repeat the same respondent profile; these were retained as supplied, so the regression and reliability statistics should be read as characterising the relationships present in the dataset as recorded rather than as evidence generalisable to an independently-sampled population of 120 individuals. Second, the sample’s heavy skew toward young, student respondents mean the findings are most directly applicable to this sub-population and may not generalise to working professionals, older residents, or non-student

gig-platform users in Ranchi. Third, as with most cross-sectional survey research, the findings reflect respondents stated perceptions at a single point in time and are subject to the usual limitations of self-report data, including possible social-desirability and recall effects.

Notwithstanding these limitations, the strong internal consistency of the four constructs and the consistent direction of association across the descriptive and regression analyses provide a coherent empirical basis for the discussion presented above. Future extensions of this research would benefit from a larger sample of distinct, independently-collected respondents, drawn with deliberate attention to age, occupation, and income diversity, to strengthen the external validity of the relationships identified here.

7. Conclusion and Recommendations

7.1 Conclusion

This study establishes that the gig economy has emerged as a significant and visible feature of Ranchi's urban economy. The growth of delivery platforms has altered patterns of employment, consumption, and urban mobility, and is statistically associated – within the dataset analysed – with a perceived decline in traditional retail footfall and sales. While platform-based services generate employment and convenience for consumers, they simultaneously place competitive pressure on small retailers and expose gig workers to income volatility and limited social protection.

Ranchi appears to be moving, in incremental but visible steps, from a retail-centred urban economy toward one increasingly organised around platform-mediated services – a transition that mirrors, on a smaller scale, the platform urbanism documented in larger Indian and global cities. The central challenge for policymakers, retailers, and platform companies alike is to preserve the genuine efficiency and convenience gains that gig-platform growth has delivered, while addressing its welfare costs for gig workers and its competitive pressure on traditional retail – a balance this study's recommendations are designed to support.

In closing, the gig-platform economy in Ranchi should not be read simply as a threat to traditional retail or as an unqualified benefit to consumers and workers. It is, more accurately, a structural transition already underway – one whose direction this study's evidence supports, but whose ultimate social and economic consequences will depend substantially on the policy, retail-sector, and platform-level choices made in the years immediately ahead.

For Government and Policymakers

- Extend social security coverage, including health insurance and accident protection, to platform-based gig workers.
- Develop regulatory frameworks that ensure fair treatment, transparent incentive structures, and reasonable working conditions for gig workers.
- Incorporate delivery and logistics infrastructure explicitly into urban planning for tier-II cities such as Ranchi, including provisions for rider safety and traffic management.
- Support small retailers through targeted digital-adoption assistance, enabling them to compete on convenience as well as on trust and personalised service.

For Traditional Retailers

- Adopt digital payment acceptance and basic online ordering capability to remain competitive with app-based alternatives.
- Offer hyperlocal delivery within the immediate neighbourhood to retain customers who value speed without ceding the relationship to a third-party platform.

- Continue to leverage trust-based, personalised customer relationships and informal credit facilities as a differentiator that platforms cannot easily replicate.
- Explore loyalty and customer-retention measures suited to a local-store context, drawing on the same psychological drivers that platform loyalty programmes exploit.

For Platform Companies

- Improve worker-welfare policies, including transparent payment and incentive structures that reduce income unpredictability.
- Provide accessible grievance-redressal mechanisms and skill-training opportunities for delivery partners.
- Strengthen rider safety standards and working-condition protections, particularly for night-time and weather-exposed deliveries.

Scope for Future Research

- Replicate this study with a larger, demographically diverse, independently-sampled population across multiple tier-II cities to test the generalisability of the GPE–TRD relationship identified here.
- Examine the long-term and gendered dimensions of gig work, and the environmental implications of quick-commerce delivery models, including packaging waste and delivery-vehicle emissions.
- Adopt a longitudinal panel design capable of distinguishing pandemic-era behavioural adjustments from permanent structural changes in consumption and retail patterns.
- Extend the regression model used here to include additional predictors such as income, age, and prior retail loyalty, to better isolate the independent contribution of gig-platform participation to perceived retail decline.

8. References

1. Abraham, R., Sahay, A., & Shah, N. (2021). Platform economy and the future of work in India. New Delhi: NITI Aayog.
2. Altenried, M. (2019). On the last mile: Logistical urbanism and the transformation of labour. *Work Organisation, Labour and Globalisation*, 13(1), 114–129.
3. Bauriedl, S. (2020). Platform urbanism, digital infrastructures and gendered space. SSOAR Working Paper.
4. Berg, J., Furrer, M., Harmon, E., Rani, U., & Silberman, M. (2018). Digital labour platforms and the future of work: Towards decent work in the online world. Geneva: International Labour Organization.
5. Bholey, M. (2019). Urbanisation in India: Smart cities and reluctant urbanisation. *Indian Journal of Urban Studies*, 12(2), 45–62.
6. Brenner, N., & Schmid, C. (2015). Towards a new epistemology of the urban? *City*, 19(2–3), 151–182.
7. Ghosh, A. (2022). Gig economy and platform workers in India: Opportunities and challenges. *Indian Journal of Labour Economics*, 65(2), 215–232.
8. International Labour Organization. (2021). World employment and social outlook 2021: The role of digital labour platforms in transforming the world of work. Geneva: ILO.
9. Kenney, M., & Zysman, J. (2016). The rise of the platform economy. *Issues in Science and Technology*, 32(3), 61–69.
10. Kotler, P., Keller, K. L., & Chernev, A. (2022). Marketing management (16th ed.). London: Pearson.

11. Levy, M., Weitz, B. A., & Grewal, D. (2019). Retailing management (10th ed.). New York: McGraw-Hill Education.
12. NITI Aayog. (2022). India's booming gig and platform economy. New Delhi: NITI Aayog.
13. Rani, U., & Furrer, M. (2021). Digital labour platforms and new forms of flexible work in developing countries. *Economic and Political Weekly*, 56(18), 43–51.
14. Reserve Bank of India. (2023). Annual report on digital payments and financial inclusion. Mumbai: RBI.
15. Rosenblat, A. (2018). *Uberland: How algorithms are rewriting the rules of work*. Berkeley: University of California Press.
16. Roy, S., & Chatterjee, S. (2023). Consumer behaviour towards app-based delivery services in urban India. *Journal of Retailing and Consumer Services*, 72, 103241.
17. Shelton, T., Zook, M., & Wiig, A. (2015). The actually existing smart city. *Cambridge Journal of Regions, Economy and Society*, 8(1), 13–25.
18. Srnicek, N. (2017). *Platform capitalism*. Cambridge: Polity Press.
19. Vallas, S., & Schor, J. B. (2020). What do platforms do? Understanding the gig economy. *Annual Review of Sociology*, 46, 273–294.
20. Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2017). From multi-channel retailing to omnichannel retailing. *Journal of Retailing*, 93(2), 174–181.
21. Woodcock, J., & Graham, M. (2020). *The gig economy: A critical introduction*. Cambridge: Polity Press.