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The emerging platform economy in India- a broad review

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Abstract

This study examines the growth and characteristics of gig workers in India using PLFS data and an improved methodology based on NITI Aayog's report. Gig workers, especially platform workers, are identified using supply-side (age, education, MPCE, urban location) and demand-side (occupation, industry) filters. The results show higher estimates than official figures, with 11.98 million gig workers in 2017-18, 13.21 million in 2019-20, and a slight dip to 13.03 million in 2022-23. Female participation remains low but is growing among the younger and more educated. The study highlights the need for official enumeration and balanced regulation to protect workers while encouraging sector growth.

Keywords: *Platform workers, gig economy, workforce and Code on social security*

1. Introduction

Labor markets undergo changes according to the changes in employment arrangement. Gig economy is one such development in the labour market. The code on Social Security 2020 defines gig worker as a person who engages in income earning activities outside of a traditional employer-employee relationship. It is classified into platform and non-platform work. When gig workers use a digital platform to render service they are termed as platform workers. Expansion of internet and the process of digitization has enabled the high growth of gig economy, or particularly platform economy. Rapid growth in the number of gig workers and the expansion of gig into a variety of sectors makes it an important area of study.

India is an emerging and rapidly expanding market for gig work. According to the report of NITI Aayog titled “India’s Booming Gig and Platform economy” ,77 lakh workers were engaged in the gig economy in 2020-21 and it is estimated to reach 2.35 crore workers by 2029-30. Given the flexibility of work, many studies anticipate a higher participation of females in the gig workforce. The popularity of the gig or platform sector among women can be re-emphasized by studies which indicate that women are “major beneficiaries” of the gig economy. (Ruchika Chaudhary, 2020). Globally, the proportion of people who responded that online work was their main source of income was higher in developing countries and among women. Unfortunately, in India we don’t have a system for proper enumeration of gig workers, which makes it difficult to conduct further studies in the area. The first and only official estimate available to us now is the report of NITI Aayog titled “India’s Blooming Platform Economy”. The study aims to revise and build upon the report’s methodology to arrive at the estimate for number of gig workers for the latest period of 2022-23. It also provides a re-estimation for the years 2017-18 and 2019-20 using the revised methodology. Comparison between 2019-20 and 2022-23 estimates are used to see how the numbers change during and after COVID-19. Apart from estimation the study also dwells into understanding some trends and distribution of workers. Since the new methodology have relaxed certain assumptions, we expect the 2019-20 and 2022-23 estimates to be higher than the NITI Aayog’s estimate.

The study uses PLFS dataset. We use the concept of demand and supply side characteristics mentioned in NITI Aayog’s report to identify gig workers. To do this multilevel filtering is performed on the total workforce of India. The supply side characteristics include region, age, education, MPCE. The NITI Aayog report uses only the top 100 metropolitan cities as identified by the census 2011. But as per the data available we only obtain the list of 45 top cities in India. Filtering out only those cities will lead to severe underestimation. Also, as a matter of fact, gig economy has expanded to almost all urban areas of India even though it is not present in the top cities list. So, we take all the urban areas of India as first level filtering due to the nature of gig work and its widespread presence in all urban areas. Second level filtering is applied on age. Gig workers are assumed to be mostly in the age category of 18 to 45. This assumption is valid as most gig workers are platform workers and requires basic understanding of using smartphones and technology. In the next step we filter workers based on the level of education. Gig workers are assumed to have education qualification of secondary level or more. Since in India, most of the platform jobs are undertaken to supplement their main income it is assumed that gig workers are most likely to be in the bottom 75th percentile MPCE. The NITI Aayog report uses mobile phone penetration rate given by world bank to account for mobile phone penetration. But this study assumes that the already filtered characteristics will account for this condition. Therefore, we don't use mobile phone penetration as an additional filtering.

The demand side characteristics uses NCO-2004 and NIC-2008 to identify the occupation and the sectors which are potentially gigable. The study uses the same set of occupations and sectors mentioned in the NITI Aayog report which is obtained by considering the already published works on gig workers in India. This filtering process gives us a proportion of gig workers of the total workforce for that particular year. It is then adjusted to weights and multiplied with total urban workforce for the respective time period to arrive at the total gig workers in India.

2. Review of literature

Gig economy is an emerging trend in the global labor market. Improvement in internet and wireless communication and smartphone technology has changed the nature of work. This helped in the emergence of temporary flexible work arrangement / freelancing/ gig/ platform work. Under gig economy, the worker receives the payment only after completion of that piece of work. Such a kind of work arrangement was prevalent in the pre industrial era. But after industrialization fixed working hours, wages, employer-employee relationship emerged. After the 2008 financial crisis, gig work emerged again as people wanted means to supplement their falling income. But this time, the work arrangement became more techno-based. (Mehta, 2020) In other words, gig economy is labor market activities coordinated via digital platforms (Ruchika Chaudhary, 2020).Not all industries have picked up gig work equally; the four largest industry sectors that account for around 50% of jobs transferred to gig work are construction, retail, manufacturing and transportation (BCG Report, 2021).

There are different ways by which the gig economy is classified. Most of the literature classify it as crowd work and on demand application based work or physical work. Crowd work involves online work engaged in micro tasks, performed by freelancers. On demand work fulfills the daily traditional activities with a digital platform or application (Ruchika Chaudhary, 2020).

The gig economy has proved as a mass labor absorber. In the US, around 55 million people were estimated to be part of the platform economy in 2017. (Anweshaa Ghosh, 2022). Recognizing the growing importance of the sector, researchers have focused their studies on the shortfalls of such a kind of arrangement. Heels (2017) explains structural asymmetry where the platforms have all the information related to the worker, giving them the power to manipulate the system. Further flexibility of the work is often criticized for leading to commodification of workers. Informalization of labor dilutes the company's obligation to provide social security benefits (Anweshaa Ghosh, 2022) Also the measuring of workers' performance through ratings by customers which is used to pay wages leads to unequal power and the workers may end up working 24 hours to improve their ratings (Anweshaa Ghosh, 2022) Yet the recent IWWAGE study with beauty workers from Urban company revealed that 85% of respondents were satisfied with flexible timings and acknowledged it was the most attractive feature of gig work.

Understanding the importance of the gig economy, several nations have enacted certain regulations to reduce the exploitation of workers. California Bill on gig workers (AB5) restricts the companies to treat workers as independent contractors. In 2018, the European commission mandated the provision of maternity leave and other benefits to gig workers. The US government recommended recognition of gig workers as a separate category of workers. Canada identified gig workers as dependent contractors through which they can unionize and will be provided minimum wages. (Anweshaa Ghosh, 2022)

India is an important destination for gig workers. Developing and regulating this sector to yield the most benefit out of the demographic dividend is considered crucial. This is more revealed by looking at the employment situation in India. The unemployment figures in the country are escalating as revealed by these number. The youth who belong to the category of 'not in education, employment, or training' (NEET) reached 100 million in 2018, which was 27 per cent of the total youth in the country and the highest in the world. (Mehta, 2020). Therefore, if we are able to tap the job absorbing capacity of the gig sector and regulate it, we can increase the employment opportunities for the citizens. Interestingly, millennials (1980-2000) which forms 34% of India's population and 45% of India's workforce prefer gig work (Mehta, 2020)

According to a report by the industry body Associated Chambers of Commerce and Industry of India (ASSOCHAM) in January this year, India's gig economy is estimated to grow at a CAGR of 17.4 per cent, from USD 204 billion to USD 455 billion by 2023.In India, NITI Aayog estimated that since 2014, ola and uber have created jobs around one million and 2.2 million. But gender disaggregated data is not available. Under the iLabour Project, a research project at the Oxford Internet Institute, an Online Labor Index (OLI) has been developed to study the gig economy. It provides insights regarding country-specific skills popular in the global online market. For instance, the 2017 Index highlights writing and translation as the top occupational categories in the USA, while it is software development in the case of India.

NITI Aayog's 2020 report on gig economy defines gig worker as a person who engages in income earning activities outside of a traditional employer-employee relationship. It is classified into platform and non-platform work. When gig workers use a platform to render service they are termed as platform workers (India's Booming Gig and Platform economy:Perspectives and Recommendations on the future of work, 2022)According to the report 77 lakh workers were engaged in the gig economy in 2020-21 and it is estimated to reach 2.35 crore workers by 2029-30.In India,1.33% of total workers in UPSS are gig workers. Share of gig workers is largely concentrated in the unorganized sector, but informal work relation is prominent even when their share is increasing in the organized sector. It is expected to grow from 2.6% of the non-agricultural workforce or 1.5% of total workforce (2020-21) to 6.7% and 4.1% (2029-30). (India's Booming Gig and Platform economy:Perspectives and Recommendations on the future of work, 2022)

3. Data analysis

Using the abovementioned methodology we have tabulated the number of gig workers in India in 3 time periods. As expected, we find that the estimate of the study is higher than the NITI Aayog report. Further we perform the process for males and females separately which helped us present the gender disaggregated data.

Some of the key findings from the data are given below. The estimation results reveals that the number of gig workers in India during 2017-18 is 11.98 million as opposed to 52.6 lakhs reported by NITI Aayog. This is 0.08 percent of the total urban workforce. In 2019-20, the total number of gig workers is 13213670 or 13.21 million as opposed to 68 lakhs mentioned in the report. These numbers seem more accurate considering the growth and penetration of gig workers in India during and after COVID. As expected after covid in 2022-23 we see a slight dip in the number of gig workers to 13.03 million. This may be due to people getting into regular jobs post the pandemic shock and revival of other traditional sectors in the economy. But still, we see that it is just a small dip in the number and we can expect this proportion to rise in the future due to new technology and innovation in all the sectors of our economy.

Urban gig workers, million	**All**	**Male**	**Female**
2017-18	11.98	10.92	1.25
2019-20	13.21	11.48	1.79
2022-23	13.03	11.36	1.84

During these three years considered we find that gender wise trends in growth of gig workers follow a similar pattern. Compared to male workers, female gig workers are very less in number. This can be attributed to the existing social norms about women taking part in income earning activities. The difficulties they may face during the rendering of service due to the lack of rules regarding safety at workplace may also affect female participation. But as proved in earlier papers we acknowledge the fact that there are strong reasons like flexibility at work and temporary nature of work which encourage more women to enter the gig economy compared to other traditional sector. Yet their share compared to male workers remain abysmally low which matches with the general trends of jobs in Indian labor market. Another important fact is that while after COVID the total number of gig workers and the number of male gig workers recorded a dip, the number of female workers were on the rise. But the number of gig workers as a percentage of total female urban workforce have declined in the post COVID period when compared to 2019-20. This can be due to an increase in the number of female workforces, not just in gig work but in other sectors as well.

The share of gig workers as a percentage of total urban workforce in all three years of study doesn’t show much variation. It is more or less stable between 0.07 to 0.08 percentage. Hence there is no evidence for gig workers share immensely increasing during COVID compared to 2017-18 or massively dropping after the revival of economy post COVID.

Urban gig workers as % of total urban workforce	All	Male	Female
2017-18	0.08	0.09	0.042
2019-20	0.08	0.089	0.048
2022-23	0.071	0.081	0.042

Results and discussion

We conduct some more analysis to understand more about the characteristic of gig workers. The gender wise distribution reveals that female gig workers are less than 15% of total gig workers in India in all the time periods studied. The share increased by 3 percentage points from 2017-18 to 2019-18. There isn't much change in the distribution between 2019-20 and 2022-23. This result therefore doesn't help us in finding variation in the female gig workers' share during and post COVID.

Year	% male	% female
2017-18	89%	11%
2019-20	86%	14%
2022-23	86%	14%

Education level was used as a characteristic to identify gig workers. General education level above 8 is used for this purpose. The share of gig workers in categories 8,10,11,12 is higher than non-gig workers in 2017-18, 2019-20 and 2022-23. We see a larger share of gig workers in education levels of 8,10 and 12. Although through the time period studied, we see the share of gig workers in 8 reducing and that in 10 and 12 increasing. We further tabulate the gender wise education distribution of gig workers. In all the categories male gig workers have a higher share compared to female gig workers which is expected. But while moving from 8 to the highest education level of 13, we see the share of female gig workers increasing. This proves that of the share of female gig workers in India, a larger share is highly educated category.

Year	8	10	11	12	13
2017-18	34%	27%	3%	29%	6%

2019-20	31%	28%	3%	31%	7%
2022-23	30%	30%	3%	31%	6%

	8		10		11		12		13	
Year	M	F	M	F	M	F	M	F	M	F
2017-18	92%	8%	90%	10%	90%	10%	86%	14%	83%	17%
2019-20	89%	11%	88%	12%	91%	9%	82%	18%	82%	18%
2022-23	88%	12%	87%	13%	93%	7%	83%	17%	79%	21%

While examining the age category of gig workers we find that most of them are in 15-29 and 30-39 age group. This confirms our assumption that gig workers are younger compared to other sectors. There are no stark differences in the share across the 3 different time periods. Therefore we can’t draw any pattern with age distribution before, during and after COVID.

	15-29	30-39	40-59	60 and above
2017-18	41%	39%	20%	0%
2019-20	44%	37%	20%	0%
2022-23	39%	40%	21%	0%

The gender disaggregated data of gig workers in different age groups reveals that female share is higher in 15-29 age group. It is the lowest in 40-59 age group. This can help us conclude that female gig workers would be on average younger than their male counterparts.

	15-29		30-39		40-59		60+	
Year	M	F	M	F	M	F	M	F
2017-18	86%	14%	90%	10%	93%	7%	0%	0%
2019-20	84%	16%	89%	11%	89%	11%	0%	0%
2022-23	85%	15%	86%	14%	87%	13%	0%	0%

Lack of information of gig workers and their nature of occupation limits our understanding about the growth prospects of the nation. Workers are devoid of all kinds of social security benefits including accident insurance. There are no acts or rules regulating the gig sector which means that the workers can be subject to a lot of exploitation in terms of working hours, wages etc.

4. Conclusion

The need for a nationwide enumeration of gig workers is getting intensified with the multifold rise in workers. The estimations based on sample or classification of potential gig workers are not substitutes for a comprehensive enumeration. If workers are protected with insurance, workplace security and other benefits, a lot more people are likely to join the platform economy, which is flexible and enables a person to have a better work life balance. But over regulation can also disincentivise the employers in hiring more workers. So, there should be clear balance maintained for the good of both workers and employers.

Safeguarding the platform workers through government support and regulation is important as enumeration. Some of the states in India have taken measures to ensure worker protection. Rajasthan government in 2023, passed the Rajasthan Platform based gig workers (Registration and welfare) Bill. It mandates the registration of gig workers under the state government which enables them to avail the social security benefits. It also mandates the establishment of a welfare board. Karnataka government has announced the implementation of insurance cover worth 4 lakh rupees to gig workers in 2023.

The Government of Kerala constituted a technical Committee on July 2024 to study the problems faced by the Platform Based/Online food delivery Workers and to formulate general guidelines regarding service/ wage provisions of Online Food Delivery workers in the State. Labour Minister V Sivan Kutty had unveiled plans for a comprehensive Kerala State Platform Based Gig Workers (Registration and Welfare) Bill, 2024. The proposed bill aims to address the issues faced by gig workers by providing legal protection, improved welfare, guaranteed decent working conditions, and economic security. According to recent information, the bill has been sent to law department for consideration and is expected to be introduced in the next Assembly session. Such initiatives will help in reaping more benefits out of platform economy

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