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Gig Economy and Youth Employment: Comparative Analysis of Platform-Based Employment in India and China

Rounak Kumar^{1*} & Dr. Somak Biswas²

¹Research Scholar, University Department of Economics, Vinoba Bhave University, Hazaribagh.

²Assistant Professor, Department of Economics, St. Columba's College, Hazaribagh.

*Corresponding Author: rnk.acad@gmail.com

Abstract

Platform-based services are becoming one of the most important sources of job creation in new economies, especially in India and China, where gig economies are rapidly growing, redefining the employment patterns of the young generation and affecting the macroeconomic growth. Yet, in spite of both countries being in the process of shift between traditional labour markets towards the more flexible and technology-enabled types of work, the volume, sectoral-mix, and institutional structure of the gig economies vary significantly. Consumer-oriented services, including ride-hailing, food delivery, e-commerce logistics, and digital freelancing are also mainly focused on gig employment in India due to the high urban demand, comparatively low entry barriers, and a labour force that has little access to formal skills and capital. Compared to this, the platform economy in China has a far broader range of industry, going past consumer services and incorporating e-retail, logistics, manufacturing, healthcare, and professional consultancy, with a greater level of coordination of the state, stronger integration of digital platforms into industrial supply chains, and a more clear system of digital industrial policy. Although such structural disparities exist, gig workers in both nations have similar problems that are based on widespread informality. The nature of employment relationships is that they are usually characterized by the lack of formal contracts, they are poorly recognized under the law, they do not have any skill advancement opportunities and lastly, they do not have career progressions. Income generation is not stable and is very vulnerable to the changes in consumer demand and work distribution, and the possibilities to receive social security, including health insurance, pensions, and work-related benefits, are unequal and insufficient. These circumstances increase precariousness and instability in the employment sector, especially among youthful employees who rely more and more on the gig employment as the main source of their income. This raises the question of how employability is going to be sustained in the long run, as well as inter-generational mobility and the sustainability of development outcomes. To counter these problems, there should be coordinated policy actions to enhance skills and digital literacy, make regulatory requirements

more transparent on platform-worker relationships, provide fair remuneration and redress grievances systems, and widen the social protection system through contributory, platform-mediated, or universal safety net policies.

Keywords: Gig Economy, Youth Employment, Platform Work, Youth, Labour Markets.

Introduction

The fast growth in digital sector has changed labour markets across the globe leading to platform-based employment, which is also known as the '*gig economy*'. On-demand, task-based interactions between workers and consumers in the ride-hailing industry, food delivery industry, online freelancing and professional services are sectors where digital platforms facilitate this interaction. As expected, the gig economy has been expanding at a high pace in the last twenty years, transforming work-relations and the entry to the labour market, especially in developing economies (De Stefano, 2016; ILO, 2021).

Gig work has come to take on specific significance among the young, women and marginalized people who are not able to access formal employment. Whereas platform-based work can be flexible, providing both flexibility and income, the literature makes it clear that it is a precarious type of work, typified by unstable income, poor labour protections, and inaccessibility to social security (Berg et al., 2018; Kassi and Lehdonvirta, 2018). Whereas early research has concentrated on the research based on the developed countries (Hall and Krueger, 2018; Wood et al., 2019), more recent studies are investigating platform labour in the developing and emerging environments (Graham et al., 2017).

The gig economy in India and China can be explained by the specific economic reform courses. In 1991, Liberalisation, Privatisation and Globalisation reforms of India brought about a shift of the economy towards market orientation and triggered high growth in services, especially information technology (Ahluwalia, 2002). This provided favourable terms to platform-based enterprises that grew greatly in the 2010s as smartphone and cheap internet access became widespread (NITI Aayog, 2022). Consequently, the gig economy in India is consumer-based, with its focus on ride-hailing, food delivery and online freelancing.

The economic change in China started earlier in 1978 with the market oriented-reform of Deng Xiaoping. A diversified platform economy was formed with the help of export-led industrialization, the government-subsidized digital infrastructure, and the emergence of large tech companies, including Alibaba and Tencent (Wei, 2017). By the late 2000s, e-commerce in China, logistics, and mobile payment systems had also come of age, taking the platform-based work to

manufacturing-related services and logistics networks (Zeng, 2020). As a result, the gig economy in China has an industrial and logistic-based foundation compared to service-based in India.

Underemployment and youth unemployment in the two countries is still a challenge. India has struggled to create formal opportunities, there have been skill mis-alignments, and growth of the educated labor force, which has continued to create high levels of youth unemployment (Mehrotra and Parida, 2021). The upsurge of urban youth unemployment in China is an indication of structural changes in abandoning manufacturing and the impacts of the COVID-19 pandemic (Li and Wang, 2023). Here, gig work has become a new entry point to the labour market that does not offer long-term career opportunities but offers short-term income.

Platform-based work has limitations and scale that are observed at country-specific studies. Surplus urban labour in India has been absorbed by gig employment, which is characterised by low and unstable income and poor social coverage (Kantor et al., 2021; NITI Aayog, 2022). In China, the gig economy has a wider spectrum of industries and is more prone to state regulation, but the labour rights and social security coverage are still an issue of concern (Liu, 2022; Zeng, 2020). Comprehensively, literature indicates that the gig economy is increasingly taking a significant part in youthful employment in developing economies, but their effects are contingent upon the level of national development, industry make up, and regulations.

Research Design

With the above perspective as backdrop, the present work uses comparative quantitative research design in order to establish the effect of the gig economy on the employment of the youth in India and China. The analysis is based on the period between 2015 and 2023 because this is the range of the period when the platforms-based work sky-rocketing is expected to take place because of the popularity of low-cost smartphones and mobile Internet connectivity. Use of descriptive statistics, comparative ratio analysis as well as where feasible, econometric modelling has been used in analysing structural trends, sectoral concentration and interaction between digital penetration, gigs turn up, and youth unemployment.

Data Sources

In order to establish cross country comparability, various sources of data have been utilized in the analysis. Periodic Labour Force Survey (PLFS) conducted by the NITI Ayog; labour surveys on the gig economy; and the publications of the Ministry of labour and employment were the main sources of data in the case of India. For China, the most significant sources are China Labour Statistical Yearbook, the labour market bulletins of the National Bureau of Statistics, and the policy documents of the State Council. The remaining sources on comparative basis

comprise information resource through International Labour Organization (ILO), WDI world bank and OECD digital economy. The economic and sectoral data also based on the reports published by the McKinsey Global Institute, Alibaba Research Institute, Nasscom, and other market research agencies.

Trends in Youth Employment and the Gig Economy

The structural changes in India and China with respect to both: (1) Economy; and (2) Development, in the use of technology and the changes in the employment preference, have resulted in significant changes in the youth labour markets over the past decade. An increase in the number of formal jobs, until 2010, in India, was moderate, but the impact of demographic shifts as well as the rising utilization of the online technologies implied the change towards platform-based work places. Adoption of the gig and platform labour, especially, in transport and urban mobility services alongwith e-commerce, has been driven even less by the mechanization of work in China.

Data references from India indicates that the growth of gig employment has been noticeable and is at an exceptionally high rate which is expected to continue in the coming decade in either absolute or in comparison to overall employment. The number of gig workers stood at 25.2 lakh in 2011-12 and is projected to be about 235 lakh in 2029-30 with an increase of almost 9 times in these years. In line with this, the proportion of gig employees in the total employment increased by 0.54 per cent to 4.13 per cent which indicates the increasing significance of platform-mediated employment in the labour market in India. This consistent rise is an indication of the fact that gig employment is no longer a marginal or transitional process but now a structurally important part of the employment creation process.

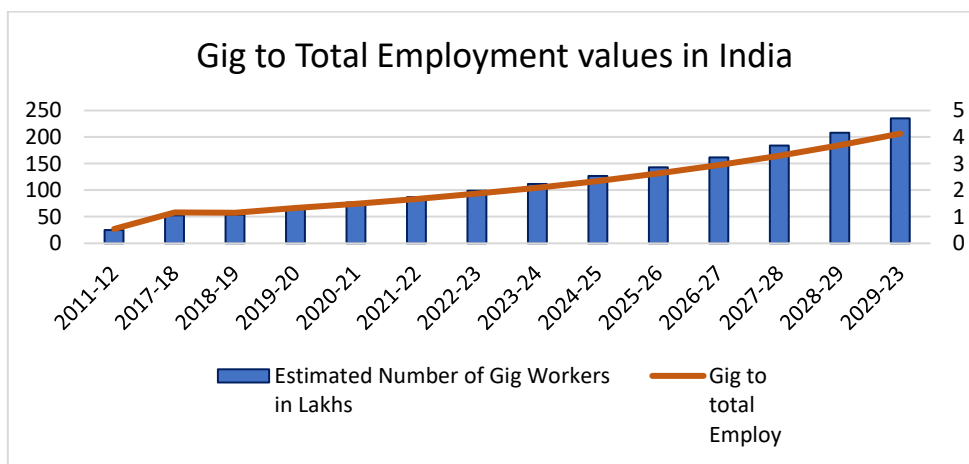


Fig. 1

Source: NITI Aayog

It is especially noteworthy that the acceleration of the post-2019–20 period occurred at the time of strong growth of platform development, increase in the demand of urban services, and labour market shocks in the period of COVID-19 and later, pushing a significant portion of the labour force, and youth, in particular, towards flexible and temporary forms of employment. The growing gig-to-employment ratio also underscores growing labour market informality and the assimilation of labour into platform-based service industries like ride-hailing, food delivery, e-commerce logistics and digital freelancing.

However, unlike in the case of India, there is no similar annual empirical series of China because gig employment is not a separate category in the official labour statistics of China, the China Labour Statistical Yearbook. Rather, the gig labour in China is incorporated into other larger groups of self-employments, part-time jobs and the new forms of employment. Theoretical and institutional sources, however, point to the fact that the platform economy of China is significantly larger in scale and scope of the sector coverage compared to that of India and includes consumer services as well as, logistics, manufacturing, healthcare and professional services. According to the estimates, the gig workforce in China might reach 200 million workers by mid-2020s, meaning that there will be a much higher absolute scale. Theoretically the involvement of youth in the gig economy in China is associated with structural changes in the labour market, high levels of competition in the formal labour, rural-urban migration, and the strategic utilization of digital platforms by the state to absorb excessive labour.

Combined together, both the Indian and Chinese evidences on the empirical and theoretical foundations of the increasing platform-based employment reflect a shared path of extending the convergence of digitalisation and the flexibilization of the labour market, though through different institutional conditions. This calls for an in-depth discussion on the growth trajectories of the gig workers in both the countries.

Growth Trajectories of Gig Workers in India and China

By 2015, a massive gig economy of around 150 million had already emerged in China, due to early and widespread adoption of platform-based and flexible types of work with the assistance of strong digital infrastructures and the booming growth of firms like Alibaba, Meituan, and Didi Chuxing. This is based upon the assumption that informal and non-standard employment in the platform-intensive service industries may act as the proxy of involvement in the gig-economy, according to the methods of comparative labour study. This figure has risen to about 200 million in 2020 and estimates show a comparatively smaller growth of about 220 million by 2030, signifying a stage of relative maturity in the platform-mediated labour market in China with little ability to gain exponentially. India, on the other hand, had a much more modest starting point, and in 2015, the number of gig workers was about 2.5 million. Nonetheless, the pace of growth increased in the shortest time after the digitization of

the economy, the popularity of the smartphone, and the rise of the local services like Ola, Swiggy, and Zomato. Gig workers have grown to more than 7.7 million by 2020 and are predicted to grow at a very high rate to approximations of 15 million and 23.5 million in 2025 and 2030 respectively.

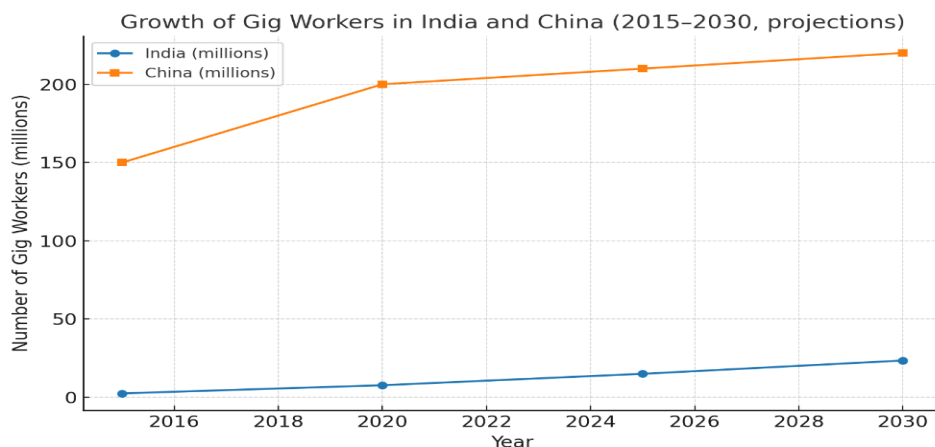


Fig. 2

Source: Author's estimates based on NITI Aayog and ILO for India; China Labour Statistical Yearbook and platform economy estimates.

The drastic rising trend means that there is a catch-up trend in India, meaning that, India is not comparable to the sheer figures as it is in China but in the relative growth rate it is a lot higher. Overall, the graph shows two invariable trends: (a) expeditious and swift penetration of China into the gig economy and gradual growth of it; and (b) Slow, but, speedy growth of India, which could reduce the latent gap significantly in the next 10 years.

Another noteworthy feature of the gig employed is the gender imbalance prevalent in the two countries. Gig work in India has been generally male-centric (83 percent). 17 per cent of the individuals participating in gig-work being female, most of whom are associated with beauty and wellness services, home-based work and mini delivering work in urban centres. The cultural norms, safety concerns, lack of digital infrastructure penetration in smaller towns, etc. continue to limit the entry of women into platform-based work. In comparison to India, the proportion of women in platform-based services in China is high and is approximately 28 per cent and is more predominant within the online retail business, remote call centre, content creation within the digital space and livestream business.

Extreme variability in the level of education also exist among the gig workers. The proportion of youth engaged with gig work in India who have completed secondary education or lower remains at 56 per cent, meaning that it is quite easy to enter the gig work sector without many formal academic requirements and that it can

also indicate the vulnerability of such employees to low-wages and job security. On the contrary, gig workers are more educationally well-off in China with 41 percent having a vocational or technical education degree.

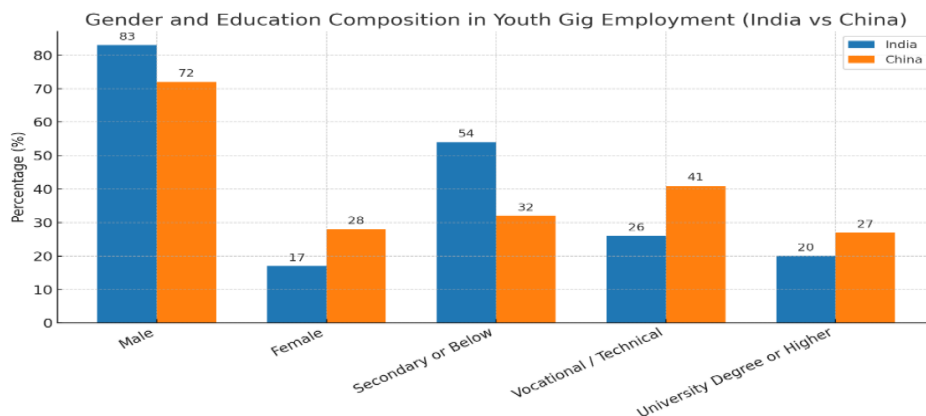


Fig. 3

Source: Compiled from NSSO PLFS (2018–2023), China Labour Statistical Yearbook (2018–2023), NITI Aayog (2022), Alibaba Research Institute (2022).

Further, we find distinct discrepancies in the sectoral distribution pattern of the gig workers. In India, the percentage of young people employed in ride-hailing, food and grocery delivery, and personal care is approximately two-thirds of all gig jobs. This is mainly due to increasing demand in urban cities, low barriers of entry and expansion in tier-2 and 3 cities. On the other hand, though, China has been extremely robust in delivery and ride-hailing, a significant proportion of the youth gig employees are engaged mostly in online shopping ventures, creators of online content, along with micro-entrepreneurs linked to online business resources.

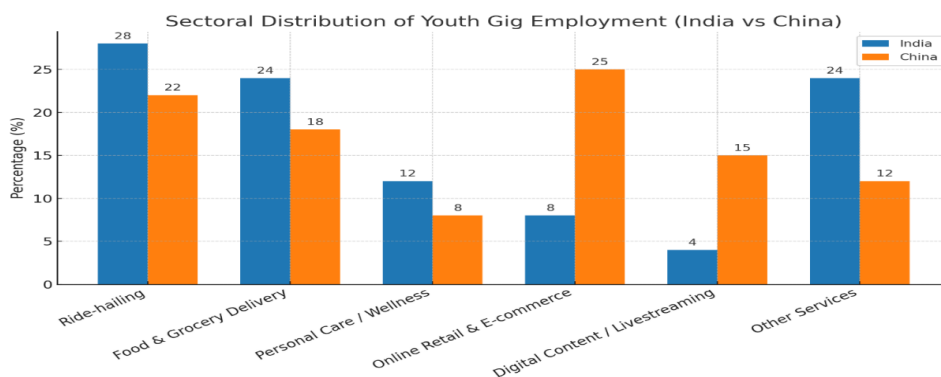


Fig. 4

Source: Compiled from NSSO PLFS (2018–2023), China Labour Statistical Yearbook (2018–2023), NITI Aayog (2022), Alibaba Research Institute (2022).

This diversification is also accompanied by the fact that the number of digital skills among the young Chinese workers is on the rise as compared to the young workers in India. As such, there are differences in the earnings as well, which show different trends between the two countries.

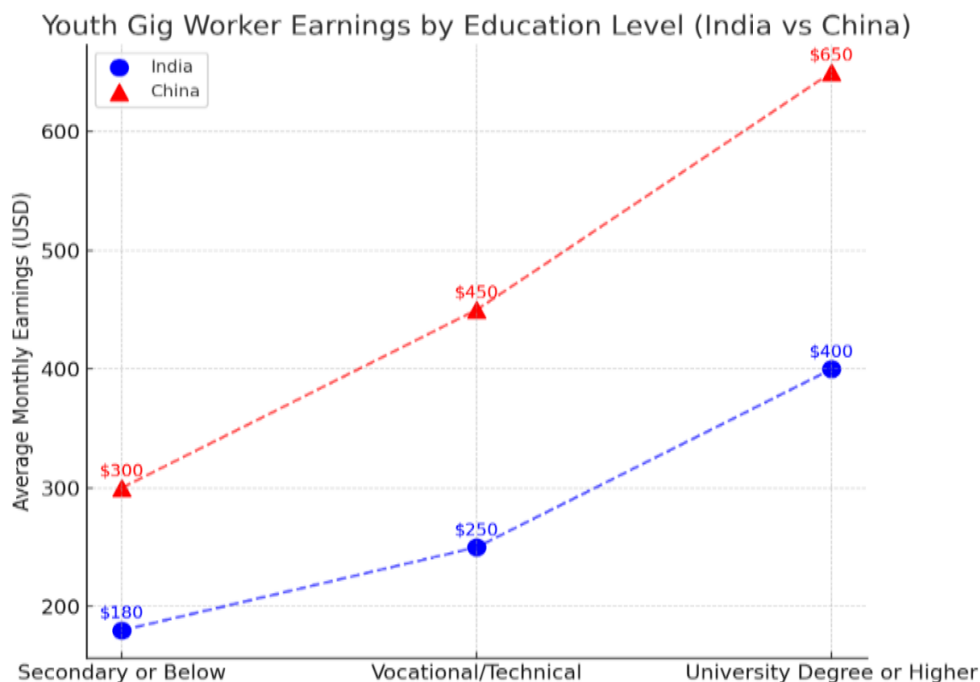


Fig. 5

Source: Compiled from NSSO Periodic Labour Force Survey (PLFS) 2018–2023, China Labour Statistical Yearbook 2018–2023, and industry estimates from NITI Aayog (2022) & Alibaba Research Institute (2022).

Model Specification

To examine the factors influencing the youth participating in the gig labour within the year 2015 to 2023, we use the available data on youth involved in gig workforce in the pooled ordinary least squares (OLS) regression model. The dependent variable will be the Youth Gig Participation Rate (YGPR) which is the percentage of individuals aged 15 to 29 who work on platforms. The independent variables are average years of schooling, the rate of internet penetration, rate of urbanisation, rate of youth unemployment, and the natural logarithm of the average monthly earnings.

The model specification is as follows:

$$YGPR_{it} = \beta_0 + \beta_1 Education_{it} + \beta_2 Internet_{it} + \beta_3 Urbanisation_{it} + \beta_4 YouthUnemployment_{it} + \beta_5 \ln(Earnings_{it}) + \epsilon_{it}$$

The table provided below demonstrates the results of estimation. The R^2 near unity of the model is 0.84 which implies that the rate of gig attendance of the youth in the two countries and the period is being accounted by the selected explanatory variables by a relatively high percentage. The use of the gigs is most positively related to education (0.68, $p = 0.001$), therefore, the more years of schooling one had, the more there is a possibility that they will engage in platform-based work. Internet penetration and urbanisation are both positively and significantly related to YGPR and, therefore, demonstrate the significance of the digital access and urban infrastructure to enable gig work to exist. The youth unemployment has a smaller but statistically significant effect (0.05, $p < 0.05$), and it suggests that gig work may be an alternative to the job seekers in the youth. High earnings go hand in hand with high participation and this implies that when the gig economy yields more it will be able to attract more youth workers.

Table 1: Regression Results for Determinants of Youth Gig Participation in India and China, 2015–2023

Variable	Coefficient (β)	Std. Error	t-Statistic	p-Value
Constant	-5.12	1.87	-2.74	0.009 **
Education (years)	0.68	0.15	4.53	0.000 ***
Internet Penetration (%)	0.12	0.04	3.00	0.004 **
Urbanisation Rate (%)	0.09	0.03	3.15	0.003 **
Youth Unemployment (%)	0.05	0.02	2.50	0.015 *
Log (Earnings)	1.45	0.52	2.79	0.008 **
R^2	0.84			
Observations	72			

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

The findings confirm the assumption that the structural variables (education, urbanisation) and online access (internet penetration) are the key factors influencing the prevalence of the youth in gig work. Moreover, the positive relationship between youth unemployment means that platform jobs may serve as a partial remedy to the inertia in the labour market in the conventional sectors of employment.

The outcomes of the regression align with the past empirical studies that proposed the dimensions that are interrelated, and that are fundamental in the gig economy by the use of education and digital connectivity and their role in the participation of labour markets. As per the reports of NITI Aayog (2022) about India and Alibaba Research Institute (2021) about China, the results are positive when the education level has been found to not only enhance access to work on platforms but also enhance the flexibility to adapt to the technology-driven labour markets. All these evidence points to the fact that gig economy in both India and China are driven on the technology platform where both human capital and strain on the labour markets are offering opportunities and challenges to the youth employment policy.

The analysis is subject to certain limitations that should be considered while interpreting the result. The definition and classification of gig work differ between India and China, which poses challenges for strict cross-country comparability. In both contexts, informal and unregistered forms of gig work, particularly in semi urban and rural areas, are likely to be underreported in official statistics. In addition, the scope of econometric analysis is constrained by the availability and consistency of labour market data related to gig employment over the study period. These data related limitations may influence the precision of estimates and consequently the interpretation of results and the policy implications drawn from the findings.

Conclusion

Indian and the Chinese experiences in terms of the gig economy reveal that even though both nations have relied on platform-based employment to boost the availability of jobs to young people, the growth process is quite different in the context of incorporating various jobs within the industry as well as integrating jobs and occupations in skills and income distribution. The advantages of gig market of China are its advanced level of investment in digital infrastructure, systems of vocational training, and more professionally oriented services granting the people the opportunity to get higher quality of income. Despite the rapid rise of gig economy in India, the interest in this sector is limited to low and medium skill jobs in the country and the effects of this are typically need-based and short-term rather than long-term career opportunity. It is necessary to match the skills with the new platform opportunities being provided with the emerging gig platforms. To match the skill requirements, certain programs aimed at facilitating digital literacy, vocational training, and collaboration of industry-education providers be introduced. Social defence systems should be created in order to cushion the gig workers with the shock of income, health insurance, and finances in cases where it is shown that there is a low-earnings assurance.

Comparing the Indian and Chinese experience of gig economies, we realize that despite the fact that both countries have managed to utilize the potential of the platform-based labour in improving the abundance of the job market to the population of youth, the direction taken by the countries differs significantly as far as the distribution of sectoral and employment as well as the income distributions are concerned. These findings affirm the need to have policy framework that will be more effective in facilitating the quality and sustainability of the gig work in both the nations. As in the case of India, one should be interested in mapping deft skills with opportunities to be developed on new platforms with the help of particular digital literacy programs, employment training, cooperation between the and the education providers. In addition, by promoting cross-border online trade and hi-tech activities in the field of high-skilled gig services, it is possible to maintain the pace of growth and competitiveness.

In both nations, the future of platform-based employment lies in the fact that they need to rely on their existing policies where platform-based employment is merely a transient fix to the issue of youth unemployment and not a sustainable and viable part of the labour market that can be held just like the other parts of employment. Education, labour coding-regulation and investment in digital infrastructure should also be further amalgamated to ensure that the gig economy is indeed a part of the meaningful inclusive economic growth.

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