

A REVIEW: THE GIG ECONOMY'S NEW FRONTIER OF AGRICULTURE SECTOR

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Abstract

Despite the challenges, the rise of the gig economy in India's agriculture has the potential to increase production, lower costs, and broaden access to professional services. Ensuring equitable treatment of gig workers and maintaining excellent animal care standards are critical goals that require close oversight. The gig economy is revolutionising industries such as India's animal husbandry sector, which was formerly dependent on full-time agricultural labour. Technological advancements, such as increased smartphone use and rural internet access, have enabled digital platforms to connect farmers with temporary workers and specialty services, thereby overcoming economic restrictions and labour shortage. However, significant workforce management changes are necessary. The gig economy is gaining popularity because of its flexibility and efficiency.

Keywords: *Gig Economy's, New Frontier and Agriculture.*

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Introduction:

The gig economy's emergence and expansion have brought about a paradigm change. People now have access to previously unheard-of opportunities to engage in the economy thanks to the gig economy, which is characterised by temporary, flexible labour arrangements. However, as this unconventional employment model continues to transform how people work, concerns have been raised about gig labor's impact on occupational health and overall well-being. The gig economy in India, which is dominated by online retail, had a substantial increase as a result of the lockdown brought on by the Covid-19 epidemic, according to the Economic Survey 2020-21. Up until now, India's rural gig economy has received little attention. Because many farmers and farm workers pursue agriculture as a part-time activity and have other, more or less significant sources of income, as well as because agriculture is characterised by seasonal labour peaks, where large numbers of workers may be hired for relatively short periods of time, workers in

these and related sectors are also regarded as gig workers. India ranks sixth in terms of flex-staffing, behind the United States, China, Brazil, and Japan, according to a 2019 report by the India Staffing Federation. Global interest has been aroused by the rise of the gig economy, which is characterised by flexible, short-term work. Improved connection and the proliferation of the internet are driving changes in labour relations and the growing significance of gig economies in both developed and developing sectors. According to a Mastercard report, global gig economy transactions are predicted to grow at an annual rate of 17% to \$455 billion by 2023. India ranks sixth in terms of flex-staffing, behind the United States, China, Brazil, and Japan, according to a 2019 report by the India Staffing Federation (Haritha K *et al.*, 2023).

The gig economy has made great progress in several areas, including ride-sharing, food delivery, and now animal husbandry. The once steady industry is experiencing transformation, presenting both difficulties and opportunity. The gig economy is

transforming traditional sectors, including animal husbandry in India. The rural economy relies on this industry, which is changing due to technology improvements and fluctuating labour markets. The agricultural sector, which previously relied on full-time labour, is now embracing gig work for its flexibility and efficiency. The extensive use of cellphones and growing internet connectivity in rural regions, combined with economic constraints and labour shortages, are driving this trend (Phate et al., 2024). According to Bajaj and Rajan (2024), this change is based on new digital platforms and enterprises that connect farmers with temporary workers and specialised services. Farmers can access a wide range of services, including veterinary care, dairy management, breeding, and nutritional guidance, without the need for long-term work. According to a Niti Aayog projection, the gig economy employed approximately 77 lakh (7.7 million) workers in India in 2020-21, and it is predicted to grow to 2.35 crore (23.5 million) by 2029-30.

The 20th livestock census in 2019 reported a total livestock population of 535.78 million, with 302.79 million bovines. The current number of registered veterinary practitioners in India is 67,784, which is significantly lower than the Veterinary Council of India's recommended range of 1.1 to 1.2 lakh practitioners (Tripathi *et al.*, 2024). This highlights the need for workforce management in the sector through gig work. The gig economy in India's agriculture sector has the potential to increase production, reduce costs, and improve access to professional services. However, this change raises issues, such as ensuring equitable treatment of gig workers and maintaining good animal care standards. The rise of the gig economy in animal husbandry indicates a shift towards a more adaptable and resilient agricultural industry in India (Phate et al., 2024).

Opportunities and Potential: This article compiling various Gig economy research about the technology use empowers farmer and make agriculture more profitable and sustainable. This review article-based on the impact of the gig economy in agriculture and focused on nurture.

- a. **Increased Employment:** The gig economy can create more job opportunities, particularly in rural areas where agriculture is the predominant source of income. The gig economy is predicted to considerably enhance employment prospects in India's agriculture industry, notably by leveraging technology and establishing new positions for young, tech-savvy persons, thereby raising incomes and strengthening the agrarian environment.
- b. **Flexibility and Convenience:** Gig work can provide flexibility and convenience for both workers and farmers, allowing for on-demand services and short-term contracts. The gig economy has grown rapidly in India because of its flexibility, cost-effectiveness, and independence. According to a report, India's gig workforce totals 15 million workers. Employees who preferred the work-from-home model are no longer interested in traditional jobs, which is a major component in the growing gig economy. Today, many people rely on the gig economy model as their principal source of income. The gig economy produces more efficient, cheaper, and flexible services since gig workers can work when they want. It also holds a lot of promise for labourers in rural India. Here, you may learn about how the gig economy affects workers in rural India.
- c. **Technology Access:** The gig economy can facilitate the use of technology in agriculture, such as drones for crop monitoring and delivery services for fresh produce. The gig economy in

agriculture can improve technology access by connecting farmers with specialised services such as drone operators, allowing for precision farming and efficient resource management, ultimately increasing productivity and sustainability. Farmers can use gig platforms to connect with individuals or teams who offer specialised services like drone operation for crop monitoring and precise spraying, as well as data analysis for optimizing farming techniques.

- d. **Women Empowerment:** The gig economy can empower women in agriculture by providing them with access to income and opportunities. The gig economy in agriculture can empower women by providing flexible work, income generation opportunities, and the potential for economic independence, allowing them to reconcile domestic duties with their jobs.
- e. **Agro-processing:** The gig economy can play a role in agro-processing, connecting rural producers with urban markets and enabling them to sell their produce to wider audiences. The gig economy has the potential to improve agricultural processing by establishing a flexible and efficient workforce for jobs such as farm maintenance, crop management, and delivery, potentially empowering farmers and enhancing food supply chains.
- f. **Rural Development:** The gig economy can contribute to rural development by creating new economic opportunities and improving the livelihoods of rural communities. The gig economy has enormous promise for rural development in the agricultural sector by providing flexible work possibilities, empowering women, and establishing a strong agrarian environment, potentially revolutionizing Indian farming.

Applications of Gig Economy in Agriculture:

- i. **On-demand farming:** By utilising the Uber business model, tech-savvy "agro-preneurs" can offer services such as on-demand farming, which involves delivering fresh produce straight to consumers. such Uber's transportation model, the gig economy-based "on-demand farming" concept links farmers with agricultural services (such labour, equipment, or knowledge) as needed. Rather than having to own and manage all of the resources themselves, farmers can employ agricultural services (labour, equipment, and knowledge) as needed.
- ii. **Drone services:** Farmers can hire drone operators for tasks like crop monitoring, fertilizer application, and pesticide spraying. The gig economy has facilitated the integration of drone services into the agricultural sector, which offers significant opportunities for farmers to enhance efficiency and productivity through precision farming techniques, data-driven decision-making, and specialised services like aerial spraying and crop monitoring.
Drone operators can provide farmers with specialised services such as aerial pesticide and fertiliser spraying, crop scouting, and field mapping, giving them access to expertise and technology not available otherwise. Drones can cover huge regions fast and efficiently, lowering labour costs and increasing the speed of data collection and action. Drone data can improve decision-making for planting, fertilization, irrigation, and pest control, resulting in higher yields and less waste. Drone technology can empower smallholder farmers by offering access to tools and information that boost production and profitability.
- iii. **Delivery services:** Gig workers can deliver agricultural products from farms to consumers or

retailers. The gig economy is altering agriculture by enabling delivery services, directly linking farmers with consumers, and giving flexible job possibilities, which have the potential to increase rural economies and reduce waste. Food Delivery Apps facilitate direct produce delivery between farmers and consumers, comparable to metropolitan food delivery businesses. Gig workers can assist farmers with services such as agricultural supply, animal management, and farm upkeep. Gig platforms connect farmers with trained operators, making it easier to book and operate agricultural machinery such as tractors and harvesters. Gig workers can aid farmers with crop alerts, online farm management, and digital marketing.

- iv. **Agri-tech platforms:** Agri-tech platforms use the gig economy to connect farmers with services and resources, resulting in a more efficient and sustainable agriculture sector by providing solutions such as crop advisory, input access, and market connections via digital platforms. Platforms can connect farmers with buyers, providing access to markets and information.

Challenges and Considerations:

- a) **Social Security Issues:** Gig workers in agriculture may confront issues with social security and labour rights. The rise of the gig economy in India's agricultural sector, which is defined by short-term, project-based work, raises concerns about workers' social security, as they usually lack regular job benefits and safeguards.
- b) **Income unpredictability:** Because gig workers do not have regular job or benefits, gig labour might result in income instability. Due to the nature of project-based, temporary labour and the absence of conventional benefits like regular salary or job security, the gig economy in agriculture can cause

financial instability for workers even while it offers flexibility.

- c) **Regulation and Policy:** To guarantee fair labour practices and social security for gig workers in the agriculture industry, suitable regulations and policies are required. An advanced policy strategy is required to ensure worker safeguards and long-term growth in the gig economy in agriculture, which faces regulatory challenges include a lack of social security, legal ambiguity over worker status, and potential exploitation due to the informal nature of the job.
- d) **Skill Development:** In order to engage in the gig economy, workers might need to pick up new skills, and platforms can help by offering chances for training and development. The growth of the gig economy in agriculture presents a problem for skill development since it could lead to a concentration on short-term, specialised work, which would hinder the development of long-term career advancement and overall agricultural competence.

Conclusion:

The gig economy is expanding prospects in agriculture small scale business by providing flexibility, cost reductions, and access to specialised expertise. This movement has the potential to benefit workers and livestock farmers, creating a more versatile and resilient animal husbandry sector. The gig economy will continue to grow as more organisations and people prefer agriculture worker arrangements. The gig economy enables farmers to earn money from tasks such as fruits, food delivery, and transportation.

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