



## Human Resource Management in the Gig Economy: A study on sustainable HRM practices in Gig workers in the era of Algorithmic control.

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### Abstract

*The rapid expansion of gig economy has indeed been able to transform the traditional market. The businesses today are bound to function in an extremely dynamic environment, which we can call the VUCA world. Volatility, Uncertainty, Complexity and Ambiguity is no more a buzz world but many adaptive responses to it are growing. One such kind of economy is the gig economy where the workers are paid “per task” or “per gig”. This comes as a contrast to the traditional economy where the Human Resources’ jobs were relatively stable, compensation regulated and they were protected by some social security that saved them in various contingencies of life. Not just this, the shift from traditional approach to algorithm-based control from human control has also caused structural changes in this sector in the Human Resource Management practices. As Gig economy, both platform and non- platform continues to grow, the Human resource management practices have to be introspected minutely for its inclusivity and sustainable viability in both economic and social terms.*

**Keywords:** Gig economy, sustainability, Human Resources, Human Resource practices.

### 1. Introduction

It is evident that the markets globally have undergone a rapid transformation with digital platforms revolutionizing it. The Gig economy is the economy which is per task based. it is short term in nature and is mediated through the digital platforms. The growth of gig economy is very closely linked with the dynamics of VUCA world. It is Volatility, Uncertainty, Complexity and Ambiguity. The market is more dynamic than it ever has been. There are frequent changes, it is volatile in terms of both technology and consumer behavior. Hence, gig economy is an adaptation to combat the changes of both the business in terms of job losses where the gig workers can have multiple sources of income and organization’s need of agile workforce to fulfil fluctuation overloads is met. Due to the mutual demand of uncertainty by both the organizations and the workers where employers are limited by the external environment’s constraints (ranging from political, economic, socio cultural, environmental and regulatory compliances) restricting them to plan for long terms and hence do long term hires. In such scenario, the short-term contracts, freelancing and

temporary workforce serve the purpose. It also provides opportunity to the gig workers to adapt to the demands of skills required by the company. Malik (2021) states that the entire last decade has witnessed a dramatic increase in the gig economy with more people opting for flexible employment arrangement. The opportunity comes with the advantage of being able to pick tasks according to their ability and convenient schedules. Charlton (2024) states that its growth can be seen with a \$1.847 trillion market projected by 2032. By 2030 it is expected to contribute 1.25% of India’s GDP and create a pool of 90 million jobs. In the Indian context, as per Business Standards (2024) gig economy is expected to expand significantly, with a compounded annual growth rate (CAGR). This expansion is likely to result in a major increase in the number of gig workers and a significant contribution to the country's GDP. According to a NITI Aayog Report 2022 estimate, the gig labour is expected to grow to 23.5 million by 2029–30, from 7.7 million presently. It becomes further important in context of Indian economy because India witnesses a structural demographic



change alongside the rapid expansion of digitalization technology under Digital India campaign. This will lead to the growth of Gig economy in India in a way where there is a change in the traditional business organization where job was seen in more structured form and formal employment contracts were there. The gig economy shows jobs to be in more of the form where there is absence of formal long-term contract, wages are paid per “gig” or “task” and there is very weak job security and social security that protects the workforce in times of contingencies of life. In India, the expansion of platform-based firms such as Uber, Ola, Rapido, Blinkit, Zepto, Instamart, Swiggy, and Zomato has created large-scale income opportunities. However, the governing and control mechanism of gig work is largely shaped by algorithmic control systems that automate supervision, task allocation works, and performance evaluation of the gig workers.

### 1.1. This paper aims at:

- Reviewing various literature concerning Human Resource Management practices in gig platforms.
- Examining the role of algorithmic control in shaping gig worker experiences.
- Exploring the application of Sustainable Human Resource Management in gig economy.
- Proposing a conceptual framework for sustainable gig workforce management.

## 2. Literature Review

Vallas and Schor (2020) states that Gig workers can be both platforms based and non-platform based. However, Gig workers are found to rely heavily on digital platforms to obtain work; therefore, platform regulations play an important role in their job experience. Behl (2022) states argues that there are no provisions for paid leave, meaning that if a worker has illness as contingency, they would not be paid for that time period. Mali (2020) through his studies shows a gradual drifting of India's economy with this technological and digital advancements. Gowda and Manasa (2023) through his studies tries to examine the effect of digitization on employment conditions in Indian Gig economy. Au and Tsang (2023) states that the primary benefits of gig workers as stated by

its respondents were conducted and it was stated that it was said to be the freedom it provides. According to Şen (2022), this paradigm provides workers with freedom and advantages of autonomy, that allows them to choose tasks fitting their abilities and schedules. Nagaraj Rao (2025) argues that although this gradual drift offers new income opportunities, it also raises pressing issues about job security and regulatory issues. The study strongly advocates for regulations balancing the benefits of gig employment and proper worker safeguards. Gagne (2022) argues that it also brings disadvantages such as job instability and a lack of traditional work benefits. The study lays emphasis on the need for revised labour laws to address all these challenges. Ravenelle (2021) states that the COVID-19 epidemic compounded these problems, since gig workers frequently lacked employment security and social benefit. Adapting and altering traditional HRM to accommodate gig workers is a significant challenge. Kalleberg and Dunn (2018) state that the conventional HR strategies, designed for long-term contract with the employees, fail to address the needs of gig workers. Berg (2018) highlights the issues that gig workers frequently lack access to benefits and securities, raising concerns about their employment status and treatment they receive. In the VUCA world, vast ambiguities surround gig work, regarding worker classification and benefits they receive or should receive, the challenges remain. De Stefano (2019) highlights these issues, while Bala et al. (2021) provide an overview of regulatory frameworks across various countries. HR departments must navigate complex regulations to ensure compliance and protect worker rights. Platform-enabled gig work is conducted and organized in the absence of a standard employment relationship between an employer and employee (Stanford, 2017). Instead, gig workers are freelancers (Jansen, 2017) or independent contractors (Kuhn and Maleki, 2017). They do not share employment relationship with the organisation within the confined boundary of an organization. Gig workers are independent and self-employed. This makes them different from other types of flexible labor who are employed by an organization, working on fixed-term.



Lepak and Snell, 1999; Bonet et al., 2013 cite examples through their studies demonstrating what employment relations would look like in a gig economy. There are various studies to understand workforce planning in gig workers to match labor supply and demand (Chen et al., 2015); performance management and behaviour being assessed and controlled by means of algorithmic systems (Rosenblat et al., 2017); compensation and benefits to remunerate gig worker efforts and induce desired behaviours (Lieman, 2018); and the structure of job design in gig workers (Kuhn, 2016; Stanford, 2017).

### 3. Research Gap

Despite growing work on gig work, algorithmic management, and employment uncertainty, there still remains a significant underexplored applications in integrating sustainable HRM practices with platform-based gig work. Although the existing literature mentions regulatory concerns, growing digitization as an opportunity, autonomy, yet these are mostly in isolation. They are mostly unable to give a concrete result of integration of sustainable HRM in the gig economy. Also, the work on psychological endurance and hence sustainability of gig workers under algorithmic governance or even the role of mediating factors like fairness and transparency of algorithmic control leaves huge scope for further exploration. The biggest advantage that gig economy claims is that of autonomy of workers, still “autonomy paradox,” as a concept needs thorough review as to where workers appear flexible but are highly controlled by digital systems. There is also a lack of longitudinal studies on the gig workers and so the HRM activities like career enhancement, skill growth and career sustainability cannot be tracked over time leaving no evidence for sustainable HRM. The psychological sustainability dimension also is researched in a very limited manner because the lack of empirical studies on how the concept of autonomy is perceived in gig workers with the algorithmic control they have to undergo. So, the well-being factors, stress, burnout and long term engagement of gig workers are areas still unexplored leaving a lot of room for further studies.

## 4. Conceptual and Theoretical background

### 4.1. Conceptual Background

#### 4.1.1. Gig Economy

The gig economy refers to digitally mediated, work arrangements which is on demand and is characterized by flexibility, per gig or task -based payment. The Platform firms act as intermediaries that connect customers with gig workers. It is marked by features such as flexible contracts, performance-based incentives and pay, dependent on customers' ratings and absence of traditional pay and security benefits.

#### 4.1.2. Management Through Algorithm

Algorithmic management and control refer to the use of software algorithms to assign tasks, monitor their performance, compensation determination, and enforcing discipline or control mechanism. The main features of this algorithmic control and management are real time tracking facility, scores that are generated in automated manner, dynamic incentives, speed and location of the worker etc.

#### 4.1.3. Sustainable HRM

It extends beyond short-term productivity to focus on long-term economic, social, and ethical sustainability. It also integrates in itself the areas of considerations of employee well -being, just compensation, social security protection, job security and ethical governance.

## 5. Theoretical framework

This review considers Social Exchange theory, Self Determination theory and Labour process theory.

- **Self-Determination Theory** emphasises that people are most motivated and fulfilled when their basic needs for autonomy, competence, and relatedness are met. These are: Autonomy: feeling in control of one's actions. Competence: feeling competent and skilled. Relatedness: feeling connected to others.
- **Labour process theory (LPT)** is a theory proposed by Karl Marx of the organization of work in capitalism. It examines how people work, who controls their work, which skills they use in work, and how they are paid for work. It is used to explain the bargaining power of the workers under contemporary global capitalism (gig economy in this paper) and explains the management exploitation of



workers.

- **Social exchange theory** Social exchange theory is a sociological and psychological theory which explains how people behave in relationships by using cost-benefit analysis to determine risks and benefits, treating social relationships like economic exchanges in which each person controls things the other values and decides whether to continue the relationship based on how beneficial and fair the exchange feels over time.

An analogy can be drawn with this theory with the gig economy where relationships between the employer and the employee is ephemeral based on cost and benefit.

## 6. Research Methodology

This study adopts a **qualitative review design** using a **Thematic Literature Review approach**. A thematic review systematically identifies, analyses, and synthesizes recurring patterns (themes) across existing academic literature to develop conceptual understanding and identify research gaps. Secondary data in the form of various published research papers, 25-30 in numbers of reputed authors have been taken. Most work done is between 2015-2025.

## 7. Discussions

The findings of this review suggest that while the gig economy represents an adaptive response to the VUCA environment that has indeed revolutionized the current economy, its current model prioritizes efficiency and flexibility over Human Resource sustainability. Underneath Algorithmic management, howsoever technologically efficient, can risk psychological well-being and employment sustainability of workers. A broader and accommodative integration of sustainable HRM principles into platform governance can be helpful in bridging this gap by aligning economic agility with social responsibility. Such integration is essential for transforming gig work from a survival mechanism into a sustainable employment model.

### 7.1. The Paradox of Flexibility and Control

The Gig workers are marketed as flexible and autonomous, but algorithmic systems exercise strong behavioural control. The study identifies that

- Taking Self Determination theory in the background, we can state that algorithmic management subtly transforms intrinsic motivation into controlled motivation. The performance is highly incentive driven sometimes exercising unnatural pressure.
- Ratings (which are subjected to various circumstances like situation, nature and personality of the rater) create psychological pressure because they translate into physical performance metrics. Incentive structures, surge pricing, acceptance rate metrics, rating systems, and fear of deactivation influence worker behaviour.
- “Freedom” which is highly glamourised in gig economy may be economically compelled with lots of conditions. The fact that workers have the capacity to ‘choose’ is more an economic necessity so, Autonomy seems relative, conditional and not absolute.

### 7.2. Labour Process Theory: Digital Surveillance as Modern Control

The labour control sees a paradigm shift from traditional and hierarchical supervision to digital surveillance. Also, since the information sharing is opaque, this further increases power distance. From a Labour Process angle, algorithmic management can be seen as an advanced form of labour control where under the garbs of flexibility narrative increased control is set up using intensified digital infrastructure. The paradox lies in the coexistence of subjective autonomy and objective control.

## 8. Implications for Sustainable HRM

Various theories of HRM support that

- Transparency in algorithmic decision-making can enhance fairness perceived by the workers.
- Clear communication about performance metrics can reduce psychological stress.
- Clear system based on transparency can make compensation system more trustworthy.
- Upskilling and career development opportunities are taken care of.
- Providing voice mechanisms can restore relatedness and social support.



- Including skill development and social security protection is an important part of long-term sustainability.
- Algorithm design can also be made better by designing less over reliance on customer rating, leaving no room for arbitrary penalties and ethical platform governance.
- Psychological well being can also be enhanced by ensuring participation of the workers.

Without integrating Sustainable HRM principles, algorithmic governance risks transforming flexibility into precarious dependence.

### Conclusion

This review paper examined the evolving relationship of Human Resource Management with the gig economy, with particular emphasis on sustainability under conditions of algorithmic control. The analysis of existing literature revealed that while gig platforms promote flexibility and autonomy as main features, the governance mechanisms are deeply structured by algorithmic monitoring, data-driven evaluation systems and performance metrics. The integration of Self-Determination Theory and Labour Process Theory highlights a key paradox that gig work offers perceived autonomy and embedded digital control simultaneously. Although workers experience flexibility in scheduling and task acceptance, their earnings, visibility, and continuity on platforms remain dependent upon opaque algorithmic systems. This tension challenges the long-term psychological, social, and economic sustainability of gig work arrangements. The review further indicates that current platform models prioritize efficiency and cost optimization, often at the expense of worker well-being and employment security. However, emerging discussions on Sustainable HRM suggest that transparency, fair compensation, skill enhancement, upskilling, career development, social security, ethical algorithm design, and participative voice mechanisms can strengthen workforce resilience without undermining platform performance. This will prevent labour commodification in gig economy.

### References

- [1]. Chartered Institute of Personnel and Development (CIPD). Gig work: A guide for

- employers. London : CIPD; 2017.
- [2]. 2. Friedman G. The employment relationship in the gig economy. *Ind Labor Relat Rev.* 2014;67(1):1-28.
- [3]. 3. Graham M, Woodcock J, Lehdonvirta V. Digital labour platforms and the future of work: Toward a new research agenda. *Work Employ Soc.* 2019;33
- [4]. (4):78-95. 4. Kassi O, Lehdonvirta V. Online labour: A global snapshot of gig work. Oxford Internet Institute; 2018.
- [5]. 5. Manyika J, Lund S, Bughin J, Robinson K, Mischke J, Mahajan D. Independent work: Choice, necessity, and the gig economy. McKinsey Global Institute; 2016.
- [6]. 6. Venkatesh P, Kumar R. The gig economy and its implications for human resource management in India. *Int J Res Bus Soc Sci.* 2021;10(5):11-20.
- [7]. 7. Vaghela S. Managing the gig workforce in the Indian context: Challenges and opportunities for HR. *J Hum Resour Organ Manag.* 2020;4(2):1-15.
- [8]. 8. Woodcock J, Graham M. The gig economy: A critical introduction. Cambridge: Polity Press; 2019.
- [9]. Berg, J. (2016). *Income Security in the On-Demand Economy: Findings and Policy Lessons from a Survey of 1,000 Workers.* The Aspen Institute.
- [10]. 4. Sundararajan, A. (2016). *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism.* MIT Press.
- [11]. 5. Kalleberg, A. L. (2018). Precarious Work and the Future of Work. *American Sociological Review*, 83(4), 487-510.
- [12]. 6. Kassi, O., & Lehdonvirta, V. (2018). Platform Economy in the Global South: A Review of the Literature. *International Journal of Information Systems for Crisis Response and Management*, 10(2), 1-19.
- [13]. 7. Choudary, S. P. (2018). Platform Scale: How an Emerging Business Model Helps Startups Build Large Empires with Minimum Investment. *Platform Thinking*



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- [14]. 8. Huws, U. (2019). Labour Market, Platform Economy and the Future of Work. *International Labour Review*, 158(3), 361-379.
- [15]. 9. Choudary, S. P., & Raghavan, S. (2019). The
- [16]. Platform Economy: How Technology is Transforming Work in India. *International Labour Review*, 158(3), 425-442.
- [17]. 10. Wood, A. J., Lehdonvirta, V., & Hassel, A. (2019). The Gig Economy and the Future of Work: A Review of the Literature. *European Journal of Industrial Relations*, 25(1), 7-21.
- [18]. 11. Kauffman, R. J. (2020). Performance Management in the Gig Economy: New Metrics for a New Workforce. *Human Resource Management Journal*, 30(4), 800-812.