

Algorithmic Anxiety: Gig Workers, Platform Algorithms, and Employee Resistance in India

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Abstract

Platform firms operating in India — e.g., Ola (ride-hailing), Zomato and Swiggy (food delivery) — coordinate large, dispersed workforces through algorithmic decision systems that allocate tasks, determine incentives, schedule work and adjudicate performance. While such systems enable scale and operational efficiency, they also create conditions that scholars and practitioners increasingly label **algorithmic management** — automated governance with real effects on workers' autonomy, earnings and voice. In India, a sequence of media-reported strikes, coordinated mobilisations, and regulatory interventions between 2018–2026 shows how algorithmic opacity, perceived unfairness, and limited contestation channels have produced *algorithmic anxiety* among gig workers. This case synthesizes peer-reviewed research (Web of Science / Scopus indexed) and contemporaneous news reporting to (a) document the problem, (b) analyze it using work-design, institutional and algorithmic-management theory, and (c) pose managerial and policy options. The case is strictly secondary-source based (no internal company confidential data) and intended for graduate/upper-level courses in strategy, HRM, technology & society, and public policy.

Keywords: Algorithmic management; gig economy; platform work; employee resistance; India; Zomato; Swiggy; Ola; transparency; work design

Introduction

Digital platforms coordinate labor through software that makes real-time, consequential decisions: who receives a job, which delivery route to choose, how much an individual earns that hour, and whether an account is suspended. For platforms, these algorithmic systems are core assets: they optimize matching, incentivize supply, and protect margins. For workers, the same systems can be opaque, seemingly arbitrary, and difficult to contest — especially where platforms frame workers as independent contractors with limited formal voice.

In India, media coverage and union activity over the last decade have repeatedly focused on protests by app-based drivers and delivery partners. These events illuminate a growing managerial and regulatory problem: how to reconcile algorithmic efficiency with perceived fairness, worker dignity and legitimacy. This case traces the public record — protests, surveys, company responses and academic analyses — and asks: **How should platform managers (and regulators) redesign algorithmic governance to reduce algorithmic anxiety while preserving operational viability?**

Key claims in this case that draw on academic syntheses and conceptual reviews are supported by the scholarly literature: algorithmic management performs HR functions (monitoring, scheduling, compensation, performance

management and termination), and tends to reduce autonomy and increase perceived demands unless moderated by design features like transparency and human oversight (Parent-Rochelleau & Parker, 2021); (Parent-Rochelleau et al., 2023); Comprehensive reviews likewise show the mixed but frequently adverse psychosocial effects of algorithmic management on workers (Noponen et al., 2023). The psychological and work-design consequences of AM are further elaborated in recent integrative reviews (Röttgen et al., 2024).

Industry and Organizational Context: Platforms in India

India's platform economy expanded rapidly during the 2010s and 2020s, powered by smartphone penetration, digital payments, and urban demand for on-demand services. Major players include ride-hailing firms Ola and Uber, and food/quick-commerce platforms Zomato and Swiggy. These firms use algorithmic systems to set dynamic pricing, calculate incentives and penalties, allocate orders and effect "deactivations" or suspensions. Government reports and policy documents have emphasised the growing size and importance of this sector to Indian urban employment and city logistics (NITI Aayog report on India's gig-platform economy).

From a managerial vantage point, algorithmic governance enables scale, consistent customer experience, and fine-grained cost control. From workers' vantage, however, the same algorithms govern access to income, visibility to customers, and the risk of sudden deactivation. The resulting tensions are not hypothetical — they have produced repeated public incidents and media attention, which we document below.

Gig Worker Protests and Algorithmic Regulation in India

(2018–2026)

This section collates publicly reported incidents involving algorithms, worker protests, and regulatory responses in India (2018–2026). All items are drawn from contemporaneous news reporting, NGO/union releases, and policy briefs. The aim is to present a verifiable chronology that instructors and reviewers can independently check.

Strike waves and driver protests (2018, 2023, ongoing)

Early large strikes involving Ola and Uber drivers over fares and incentive cuts were widely reported (e.g., strikes in Mumbai/Delhi in 2018; national transport actions in Bengaluru 2023). These protests frequently highlighted fare structures and algorithmic pricing as core grievances; they demonstrate how price/incentive rule changes by platforms translate quickly into collective action. (Reuters-2018)

Delivery partner mobilisations and all-India actions (2022–2026)

Food and quick commerce delivery partners (Zomato, Swiggy, Zepto, Blinkit) called coordinated strikes in late-2025/early-2026 demanding transparent wage rules, withdrawal of hyper-tight delivery targets (e.g., 10-minute delivery models), and contestation mechanisms. Media reported nationwide strike calls on major holiday days (Dec 25 & Dec 31) and strike threats that pressured platforms to temporarily raise payouts or revise incentives. (Reuters-2023)

Surveys and NGO reports of low-earnings and psychosocial stress (2024–2026)

NGO surveys and press reporting documented issues such as lack of minimum earning guarantees, long working hours, and limited access to grievance redressal. A December 2025 NDTV report summarized an NGO survey showing many delivery workers lack guaranteed minimum earnings, face long hours and have poor access to support services. (NDTV-2025)

Public statements and company disclosures on deactivations and churn (2025–2026)

Company leadership comments reported in the press (e.g., Zomato CEO interviews) acknowledged large churn and frequent terminations of delivery partners, positioning them as normal in a high-flow gig workforce. Press coverage of such comments intensified discussion about fairness and account suspension policies. (NDTV-2025)

Regulatory and enforcement actions increasing scrutiny (2024–2026)

Broader regulatory scrutiny of platform practices — including raids, competition inquiries and emergent state-level welfare legislation (e.g., aggregator rules / gig welfare acts in some states) — contributed to a changing public and policy environment. These actions signalled that algorithmic governance now sits within regulatory scrutiny in India. (Reuters-2024)³

Conceptual Anchors for Platform Work: Algorithmic Management, Job Demands-Resources, and Institutional Legitimacy

This case draws on established theorizing in three interlocking areas: **algorithmic management (AM)**, **work-design & Job Demands-Resources (JD-R)**, and **institutional/legitimacy theory**.

1. Algorithmic Management (AM)

AM conceptualizes software systems as performing traditional managerial functions — monitoring, scheduling, performance management, compensation and termination (Parent-Rocheleau & Parker, 2021). AM scholarship shows that when algorithmic systems increase the completeness of the managerial function set, workers experience lower autonomy, heightened monitoring, and limited voice — all contributors to dissatisfaction and resistance. These scholarly syntheses are central to understanding why platform workers frame algorithmic rules as matters of fairness and dignity.

2. Work design, JD-R and psychological impacts

Work-design literature (job resources vs. job demands) explains how loss of autonomy and increased monitoring translate into higher job demands (e.g., time pressure, regulation demands) and lower resources (e.g., decision latitude), increasing stress and reducing motivation. Recent conceptual work synthesizes AM and action-regulation perspectives to show plausible mechanisms linking AM to worker well-being (Röttgen et al., 2024).

3. Institutional and legitimacy lenses

Institutional theory suggests organizational adoption of technology requires normative and cultural legitimacy. Media narratives, regulatory scrutiny and public opinion shape that legitimacy. In India, as news coverage of strikes, surveys and legal actions increased, the institutional pressures on platforms shifted from purely market competition to public accountability and possible statutory interventions. Reviews of AM emphasize that sociotechnical design choices (transparency, human override, redressal processes) moderate negative outcomes and help restore legitimacy (Noponen et al., 2023).

The Managerial Dilemma of Algorithmic Governance in Platform Work

Platform executives face a three-way tradeoff:

Efficiency & Scale: AM supports real-time matching and cost control; algorithms are core to platform economics.

Worker Legitimacy & Well-being: Opacity and perceived unfair algorithmic action create anxiety, protests and reputational risk.

Regulatory & Public Scrutiny: Governments and civil society are increasingly demanding accountability for algorithmic decisions; failure to respond can lead to fines, operational constraints or new laws.

Dilemma: Should platforms continue to design opaque, highly optimized algorithms that preserve margins and scale — accepting episodic worker unrest and regulatory risk — or redesign algorithms and governance mechanisms (increased transparency, participatory design, clearer redressal) at the potential cost of efficiency?

This is not merely a technical question: it is about organizational identity (tech-first vs. socially-legitimate operator), risk appetite, and long-run survival in regulated markets.

Why Algorithmic Anxiety Arises in India?

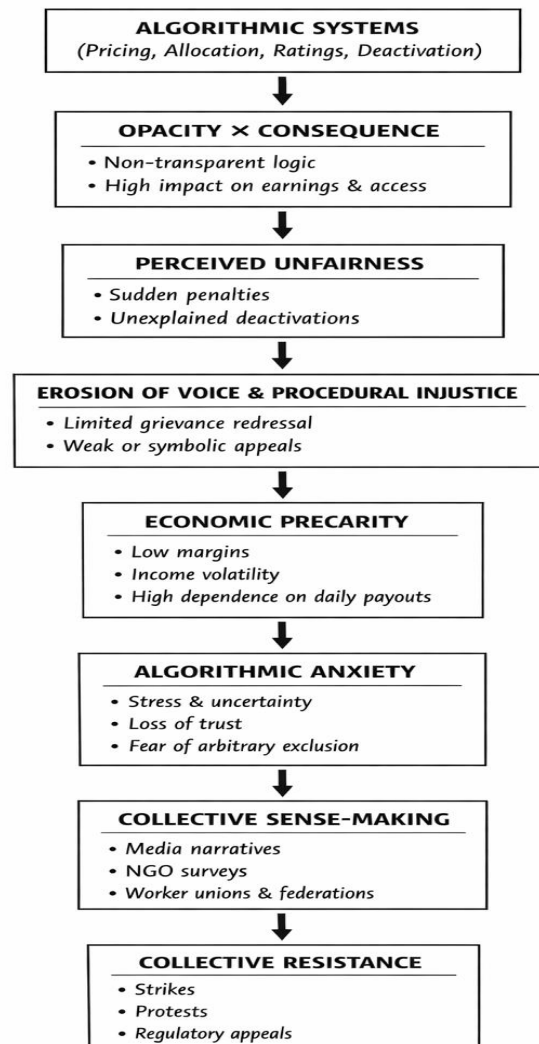


Figure 1. Conceptual framework explaining the emergence of algorithmic anxiety among platform workers in India

Using the theoretical lenses above, we unpack why algorithmic anxiety emerges in India’s platform ecosystem.

Opacity × Consequence = Anxiety

Algorithms in ride-hailing and delivery decide earnings, assignments and account status. Because algorithmic logic is proprietary and often non-interpretable to workers, the combination of high consequence and low explainability causes anxiety. Media stories documenting sudden deactivations, unexpected penalty charges, or incentive removals contribute to a perception that “the system does not play fair” (various press sources).

Erosion of voice and procedural injustice

Human managers provide explanations, negotiate exceptions and exercise compassion. When software replaces those interactions, workers lose grievance avenues. Even when appeal mechanisms exist, workers describe them as slow or ineffective — fueling perceptions of procedural injustice that can lead to collective action. Scholars note this dynamic as a central risk of more “complete” AM functions (Parent-Rocheleau & Parker, 2021).

Economic precarity amplifies response

Gig work is often low-margin and high-churn. When small changes in algorithmic incentives materially affect daily earnings, the stakes are magnified. Empirical studies of Indian hyper-local delivery show fragile net earnings under existing wage structures, which creates sensitivity to algorithmic rule changes (Sinha, 2023).

External narratives and collective sense-making

Media reports and NGO surveys supply frames that workers can use to interpret private grievances as collective injustices. The presence of active unions and platform worker federations in India has enabled coordination across geographies, turning localized dissatisfaction into nationwide actions (NDTV, Times of India reports).

Managerial Options: Practical Responses and Trade-Offs

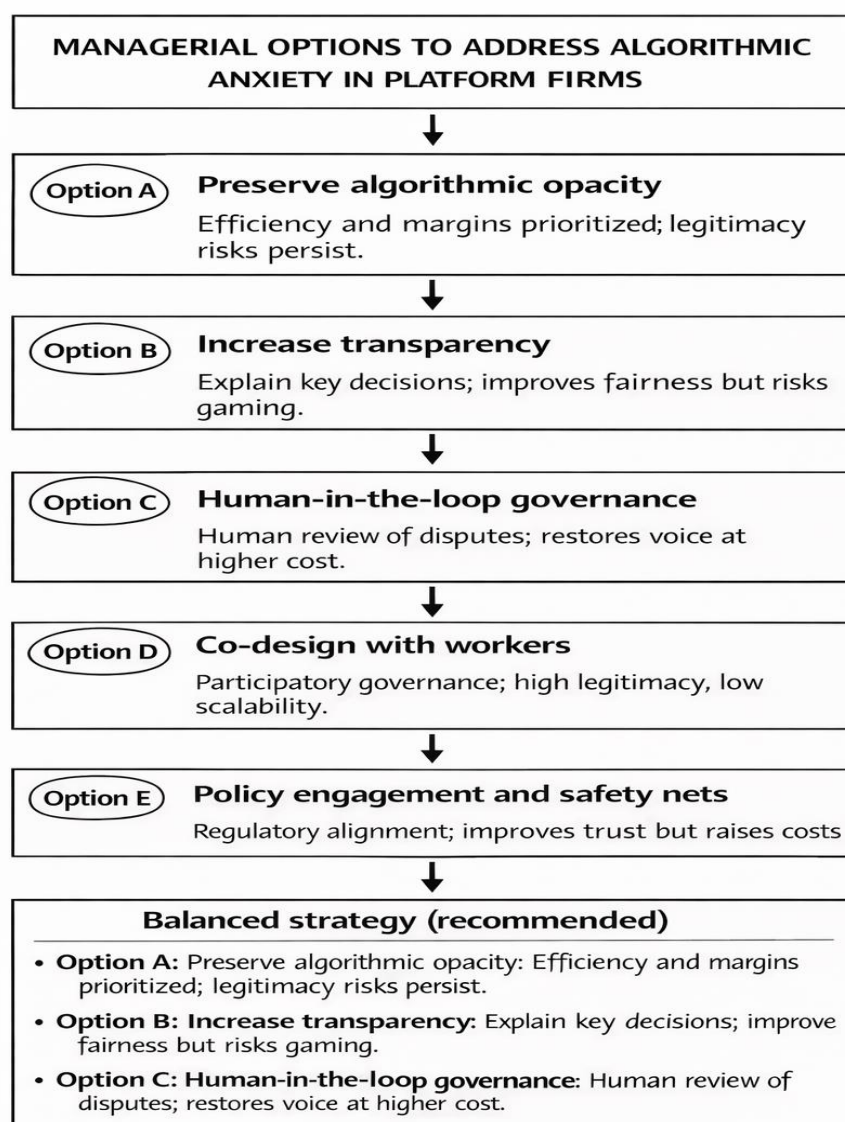


Figure 2. Managerial options to address algorithmic anxiety in platform firms

Below are feasible strategies platforms can use, with trade-offs noted.

Option A — Preserve algorithmic opacity, defend efficiency

Action: Maintain proprietary algorithms, emphasize market discipline, increase short-term cash incentives during peak conflict windows.

Pros: Preserves operational flexibility and margins; avoids revealing trade secrets.

Cons: Repeated raises via ad hoc payouts cost money and do not solve legitimacy issues; repeated protests and regulatory attention continue. Recent episodes show platforms sometimes resort to temporary payouts to defuse strikes (e.g., NYE payouts reported).

Option B — Increase transparency and create real-time explainability

Action: Offer worker-facing explanations for key decisions (why a deactivation, how pay was calculated), publish simplified rules for incentives and penalties.

Pros: Reduces sense of arbitrariness; supports perceived fairness and legitimacy.

Cons: Risk of gaming by workers, possible exposure of proprietary logic to competitors; requires product investment and new governance.

Option C — Human-in-the-loop governance and structured appeals

Action: Guarantee a human review for deactivations and complex disputes; shorten SLA for appeals; publish monthly transparency reports.

Pros: Restores managerial discretion and voice; addresses procedural justice concerns.

Cons: Operational costs; scalability challenges when disputes are numerous.

Option D — Co-design / worker councils and participatory design

Action: Establish worker councils that meet periodically with product teams to co-design incentive logic and redressal mechanisms; pilot participatory algorithm governance in sample cities.

Pros: High legitimacy gains; aligns system design with worker realities.

Cons: Requires sustained institutional commitment; risk of capture by special interests; not quickly scalable.

Option E — Proactive policy engagement and social safety nets

Action: Work proactively with regulators and state governments on welfare schemes (e.g., social security contributions, waiting hubs), and adopt minimum guaranteed earnings for specific windows.

Pros: Reduces regulatory risk and strengthens social license to operate.

Cons: Increases cost base and may attract calls for tighter employment classification.

Recommended Hybrid Strategy

For most platform managers in India, a staged hybrid strategy is defensible: rapidly implement transparent explanations for the most consequential decisions (deactivation, major penalties), simultaneously create expedited human appeal pathways, and launch pilots of worker participation councils in major metros. These steps mitigate legitimacy risks while allowing core algorithmic functions to remain proprietary. Over the medium term, negotiate policy frameworks (state welfare initiatives, conditional minimum guarantees) to stabilize labor relations and avoid repeated crises.

Conclusion

Algorithmic anxiety in India's platform economy is a live managerial problem: it arises from the intersection of powerful algorithmic governance, fragile worker livelihoods, and heightened public/regulatory scrutiny. The academic literature provides a robust conceptual toolkit showing how AM functions (monitoring, scheduling, compensation, termination) can alter job design and well-being (Parent-Rochelleau & Parker, 2021; Noponen et al., 2023; Röttgen et al., 2024). Practical remedies include improved transparency, human appeal pathways, participatory governance pilots, and proactive policy engagement. For managers and policymakers in India, the core lesson is that algorithmic systems cannot be treated as purely technical optimisation problems: they are socio-technical institutions whose legitimacy must be continuously earned.

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