

Shopee's Invisible Manager: Algorithmic Governance of E-Commerce Sellers and the Regulatory Gap in Vietnam's AI Law

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Abstract

Millions of small sellers on Shopee Vietnam operate under a system of algorithmic oversight that determines their income, visibility, and continued access to the platform — yet this system remains largely ungoverned by existing legal frameworks. Vietnam's new AI Law (Law No. 134/2025/QH15), effective March 2026, classifies recommendation and ranking algorithms as medium-risk AI systems, requiring only basic transparency disclosures. We argue this classification systematically underestimates the governance risk posed by platform algorithms that function, in practice, as management systems over the livelihoods of millions of economically dependent sellers.

This paper proposes a mixed-methods investigation into whether Shopee's algorithmic governance of sellers constitutes a form of algorithmic management — a phenomenon well-documented in ride-hailing and delivery contexts but largely unexamined in e-commerce — and whether Vietnam's current AI regulatory framework adequately addresses the resulting power asymmetry. Our approach combines: (1) structured policy document analysis of Shopee's seller policies to map algorithmic control mechanisms; (2) a seller survey (target n=50–80) measuring awareness of algorithmic criteria, experience of unexplained penalties, and perceived fairness of appeal mechanisms; and (3) a comparative legal analysis of Vietnam's AI Law against EU AI Act provisions governing employment-related AI systems.

We expect to find significant opacity in how Shopee's algorithm operates relative to sellers, limited accountability mechanisms, and a meaningful regulatory gap — findings that carry direct implications for how Vietnam's forthcoming implementing decrees should classify platform management algorithms.

Keywords: *algorithmic management, AI governance, platform economy, Vietnam AI Law, e-commerce, Shopee, regulatory gap*

1. Problem Statement

1.1 The Invisible Manager

Across Vietnam, an estimated 210,000 individuals sell goods on Shopee — one of Southeast Asia's largest e-commerce platforms. For many, this is their primary source of income. Yet the conditions under which they earn that income are not set by negotiation, contract, or labor law. They are set by an algorithm.

Shopee's recommendation and penalty systems determine which products get visibility, which sellers receive traffic, who gets penalized and for what, and — ultimately — who earns enough to continue operating on the platform. Sellers report experiencing sudden, unexplained drops in traffic, automatic penalties with no clear appeal pathway, and pressure to participate in platform campaigns or face reduced visibility. This is not incidental to how the platform functions: it is the platform's core management mechanism.

This phenomenon — where algorithmic systems replace human managers in directing, evaluating, and sanctioning workers or quasi-workers — is known in academic literature as algorithmic management. It has been extensively documented in ride-hailing (Uber, Grab) and food delivery contexts. A February 2026 investigative report in *Tia Sáng* documented how Grab drivers in Vietnam are managed entirely by algorithm — with no transparency about evaluation criteria, no meaningful appeal process, and no labor protection — calling this a "legal gray zone." The same structural dynamic applies to Shopee sellers, yet it has received almost no academic attention in the e-commerce context.

1.2 Why Existing Law Falls Short

Vietnam's AI Law (Law No. 134/2025/QH15), effective March 1, 2026, represents a landmark step: it is one of the first comprehensive AI governance frameworks in Southeast Asia. The law establishes a three-tier risk classification — high, medium, and low risk — and imposes stricter obligations on higher-risk systems.

Under current classification, Shopee's recommendation and ranking algorithms would fall under medium-risk: systems that may cause user confusion or minor market disruption, requiring transparency disclosures and basic monitoring. This classification, drawn from the EU AI Act's structure, was designed primarily with consumers in mind — people who interact with AI-generated recommendations as buyers.

It does not adequately account for a different category of affected party: sellers who are governed by the algorithm, not merely served by it. For these individuals, the algorithm does not recommend products to them — it controls their income, visibility, and platform access. By contrast, the EU AI Act explicitly

classifies AI systems used for employment-related decisions — including performance evaluation, task allocation, and access to work — as high-risk (Annex III, Category 4). Vietnam's law contains no equivalent category for platform management algorithms, leaving millions of economically dependent sellers in a governance vacuum.

1.3 Why This Matters for AI Safety

Algorithmic management at platform scale is not merely a labor rights issue — it is an AI safety concern. Three distinct failure modes are relevant:

- **Opacity at scale:** When an algorithm governs the livelihoods of millions of people without transparency about its criteria or accountability for its decisions, errors propagate silently. A seller wrongly penalized has no recourse; a systematic bias in the ranking algorithm disadvantaging small sellers is invisible to regulators.
- **Power concentration:** Shopee's algorithm concentrates enormous economic power in an unaccountable automated system — precisely the type of high-stakes automated decision-making that AI safety governance frameworks are designed to address.
- **Precedent risk:** As Vietnam's Ministry of Science and Technology finalizes implementing decrees for the AI Law, classification decisions made now will shape how platform management algorithms are governed for years. Getting this wrong creates a durable governance gap as platform economy employment continues to grow.

2. Related Work

The concept of algorithmic management was first systematically theorized by Rosenblat and Stark (2016) in their study of Uber drivers, and subsequently developed into a robust research program by Lee et al. (2015), Möhlmann and Zalmanson (2017), and Kellogg, Valentine, and Christin (2020). These studies consistently document three structural features: (1) real-time surveillance of worker behavior; (2) automated evaluation and ranking; and (3) algorithmic sanctions — including deactivation — with limited human oversight or appeal.

In the Southeast Asian context, a Carnegie Endowment for International Peace report (2024) documented algorithmic management in ride-hailing platforms including Grab and Gojek, noting the particular

vulnerability of platform workers in contexts with weak labor protections. Domestically, Đỗ Hải Hà and colleagues (2024) conducted the most comprehensive Vietnamese study to date, surveying Grab and ride-hailing drivers and documenting that workers "do not know exactly" how they are being evaluated — relying instead on guesswork based on experience.

However, a significant gap exists: no study has applied the algorithmic management framework to e-commerce sellers — a distinct population that differs from gig workers in important ways. Sellers are not employees or contractors in any conventional sense; they are nominally independent merchants. Yet their relationship with the platform exhibits the same structural features of algorithmic control documented in the gig economy literature. This paper proposes to fill that gap.

On the governance side, existing scholarship on Vietnam's AI Law focuses primarily on the high-level framework (Tilleke & Gibbins, 2026; Allen & Gledhill, 2026) or on cross-jurisdictional comparison with the EU AI Act. No study has applied the risk-classification framework specifically to platform management algorithms, or interrogated the adequacy of medium-risk classification for systems that govern economic livelihoods.

3. Methods

This research employs a three-part mixed-methods design, combining policy document analysis, a seller survey, and comparative legal analysis. The design is structured as a triangulation study: each method independently tests the central claim, and convergence across methods constitutes the primary validation strategy.

3.1 Policy Document Analysis

We conduct a structured analysis of Shopee Vietnam's publicly available seller-facing policy documents, including the Seller Performance Standards, Penalty Policy, Payout Policy, and Listing Policy. Using a coding framework derived from Kellogg et al.'s (2020) dimensions of algorithmic management — surveillance, evaluation, and sanctions — we map the specific mechanisms by which Shopee's algorithm directs, assesses, and penalizes sellers.

The analysis produces a structured output table identifying: (a) which seller behaviors are monitored; (b) how performance is evaluated and by whom (automated vs. human); (c) what sanctions are imposed for underperformance; and (d) what appeal mechanisms exist and whether they are meaningful. This output is then compared against the transparency and accountability requirements associated with medium-risk and high-risk classification under both Vietnam's AI Law and the EU AI Act.

3.2 Seller Survey

We administer a structured survey (target n=50–80) to Shopee sellers in Vietnam, recruited through Facebook seller groups and e-commerce communities. The survey instrument measures:

- Awareness: Do sellers know the criteria by which Shopee ranks their shop? Do they know what triggers penalties?
- Experience: Have sellers experienced unexplained traffic drops or penalties? How frequently?
- Recourse: Do sellers know how to appeal penalties? Have they tried? Was it effective?
- Impact: How predictable is their income from Shopee month-to-month? Do they feel the algorithm treats them fairly?

Survey responses are analyzed descriptively. The primary validation test for the opacity hypothesis (H1) is the proportion of sellers reporting that they do not understand why they were penalized and/or that appeals were ineffective. A threshold of 60% or above on either measure is treated as sufficient to establish the phenomenon at a scale warranting governance concern.

3.3 Comparative Legal Analysis

We conduct a systematic comparison of Vietnam's AI Law (specifically Điều 9 on risk classification and Chapter II on obligations) against the EU AI Act (specifically Annex III on high-risk categories and Article 13–15 on transparency, human oversight, and accuracy requirements). The comparison focuses on: (a) how each framework defines the categories of AI systems requiring heightened governance; (b) whether platform management algorithms fall within or outside those categories; and (c) what governance obligations would attach if such systems were re-classified as high-risk under each framework.

Expert validation interviews (n=2–3) with researchers and practitioners in AI governance and platform labor law are conducted to triangulate the legal analysis and ground it in practitioner judgment.

4. Expected Results

Based on the preliminary policy document review and existing literature on algorithmic management in analogous contexts, we expect the following findings:

4.1 Policy Document Analysis

We expect to document that Shopee's seller policies exhibit all three structural features of algorithmic management: (1) systematic real-time surveillance of seller metrics; (2) automated performance evaluation with limited human involvement; and (3) automated sanctions — including reduced visibility and account penalties — without meaningful appeal mechanisms. We expect to find that Shopee's disclosure obligations to sellers fall significantly short of the transparency requirements that would attach under a high-risk classification.

4.2 Seller Survey

Consistent with the Đỗ Hải Hà et al. (2024) findings for ride-hailing drivers, we expect that a substantial majority of Shopee sellers (>60%) will report: (a) not knowing the criteria by which their shop is ranked; (b) having experienced unexplained penalties or traffic drops; and (c) finding appeals ineffective or unavailable. We expect income predictability to be rated low, and perceived fairness of the algorithm to be rated negatively.

4.3 Comparative Legal Analysis

We expect to find a meaningful governance gap: Shopee's platform management algorithm, when analyzed against EU AI Act criteria for employment-related AI systems (Annex III, Category 4), would likely qualify as high-risk — given that it makes consequential decisions about individuals' access to economic activity and livelihood. Vietnam's current medium-risk classification does not impose equivalent obligations, creating a regulatory gap that leaves millions of platform-dependent sellers without adequate protection.

5. Discussion and Limitations

If confirmed, these findings have direct implications for Vietnam's AI governance trajectory. As the Ministry of Science and Technology finalizes implementing decrees for the AI Law, the classification of platform management algorithms represents an early test case for whether the law's risk framework can address the actual distribution of AI-driven harm in Vietnam's digital economy — which is concentrated not in the consumer-facing applications the medium-risk tier was designed to address, but in the B2B2C infrastructure that governs how millions of small sellers access markets.

More broadly, this research contributes to a growing body of AI safety scholarship focused on the Global South. Vietnam's AI Law is one of the first such frameworks in Southeast Asia. How it classifies platform management algorithms will have demonstration effects for other jurisdictions in the region that are developing or adopting similar frameworks.

Limitations

- Survey sample may be subject to selection bias: sellers who participate in Facebook groups and are motivated to respond may not be representative of all Shopee sellers.
- Policy document analysis is limited to publicly available materials; internal Shopee guidelines and algorithm documentation are not accessible.
- This is proposed research: full data collection and analysis will be completed by November 2026. The results reported above are expected findings, not confirmed outcomes.
- The comparative legal analysis assumes that the EU AI Act's employment-AI category is the appropriate benchmark; other frameworks may reach different conclusions.

Future Work

Natural extensions of this research include: (1) expanding the survey sample to include sellers on Lazada and TikTok Shop Vietnam to test whether the governance gap is platform-specific or industry-wide; (2) conducting in-depth qualitative interviews with sellers to supplement the survey findings; and (3) proposing specific draft language for Vietnam's implementing decrees that would address the identified classification gap.

6. Conclusion

Shopee's algorithmic governance of sellers constitutes a form of algorithmic management: an automated system that directs, evaluates, and sanctions millions of economically dependent individuals with limited transparency, accountability, or recourse. Vietnam's new AI Law — a landmark governance achievement — does not currently address this category of AI-driven harm, classifying the relevant algorithms as medium-risk when their actual governance profile is closer to the high-risk systems that attract the law's most stringent obligations.

This research proposes to document this gap empirically and analytically, and to translate those findings into concrete policy recommendations for Vietnam's forthcoming implementing decrees. In doing so, it aims to contribute to an AI governance regime that protects not only consumers from AI-generated confusion, but the millions of small sellers whose livelihoods are governed by algorithms that currently operate beyond meaningful regulatory oversight.

Code and Data

This is a policy analysis and survey-based project. No code repository is applicable at this stage. Survey instrument and dataset will be made available upon completion of data collection (target: September 2026).

- Data/Datasets: Shopee Product Listings Dataset — Kaggle (Rebrowser.net, Attribution-NonCommercial 4.0)
- Survey instrument: To be published upon IRB clearance

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LLM Usage Statement

Claude (Anthropic) was used to brainstorm research directions, structure the argument, draft sections of this paper, and assist with literature framing. All claims, arguments, and expected findings have been independently reviewed by the author. The research design, hypotheses, and policy recommendations reflect the author's own analytical judgment.