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Unpacking the Trust Crisis in Human Resource Decision-Making under Algorithmic Management: Deep Causes and Optimization Paths

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Abstract: *Despite the considerable gains in human resource efficiency brought by automated oversight, employee trust has been deeply compromised due to algorithmic overreach. This crisis manifests as perceived unfairness from algorithmic black boxes, implicit discrimination driven by data bias, privacy anxiety from panoptic surveillance, and psychological contract rupture. Drawing on organizational behavior and technological ethics, this paper dissects the underlying structural dilemma: cognitive constraints caused by black boxes, collapsed fairness due to contextual blind spots, and power imbalances resulting from ubiquitous surveillance and a lack of institutional remedies. To resolve this crisis, enterprises must abandon pure technological instrumentalism. We propose a four-dimensional optimization framework: enhancing algorithmic transparency and auditing, establishing a "human-machine collaboration" decision-making mechanism, refining democratic consultation and rights remedy systems, and cultivating a human-centric digital ethical culture. Ultimately, this study seeks to integrate machine precision with human empathy, providing theoretical and practical guidance for repairing psychological contracts and constructing harmonious labor relations in the digital economy.*

Keywords: *algorithmic management, human resource decision-making, trust crisis*

1. Introduction

Against the backdrop of the booming digital economy and breakthrough advancements in artificial intelligence technologies (such as generative AI large models), corporate management paradigms are undergoing profound transformations. The intuitive, traditional approach to HR is making way for 'algorithmic management,' a modern paradigm heavily reliant on data analytics and automated systems. Specifically, this concept denotes a data-centric and fully automated framework where pre-programmed logic independently executes administrative choices—tasks traditionally reserved for human managers—without any human involvement[1]. Consequently, the current research concentrates on three specific dimensions of this technology that are widely discussed in both academia and industry: algorithmic monitoring, algorithmic decision-making, and algorithmic feedback[2,3]. Core management functions such as task assignment, performance evaluation, and workflow collaboration have been deeply integrated into algorithmic management. These functions are implemented through massive data collection, predictive modeling, and automated execution.

The wide use of algorithms in organizations has sparked discussions about how they reshape organizational control. It is irrefutable that algorithms offer substantial benefits by eradicating personal biases, analyzing massive datasets, and streamlining the distribution of resources.[4]. But at its core, HR is all about managing people, which naturally involves a lot of social interaction and human emotion. Algorithmic management completely shakes up HR by handing over traditional jobs—like assigning tasks, reviewing performance, and calculating pay—directly to software systems. This shift basically makes "the app the boss." It strips away crucial human interaction and turns complex working relationships into simple, one-way data transactions. When cold logic and numbers replace real, empathetic human managers, employees start losing trust in the company's decisions like never before.

The main reason employees are losing trust in HR decisions is that these algorithms operate in the dark. When evaluations are handled by a mysterious "black box," it leaves employees feeling confused, frustrated, and like the whole process is completely unfair. Ultimately, this eats away at their trust in the company. We've seen a lot of this lately, with frequent clashes between workers and management

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sparked by algorithms deciding who gets laid off or constantly tracking employees' every move. Therefore, a major task for modern businesses is to figure out exactly how and why this trust is breaking down, and to find a better way forward—one that balances the cold efficiency of technology with real human care.

Regarding the nature of application, studies indicate that algorithms have penetrated traditional bureaucracies, evolving from mere efficiency-enhancing tools into an "implicit control mechanism" that reshapes workplace power dynamics[5]. Concerning crisis manifestations, scholars have deeply exposed the lack of procedural justice and the subsequent "algorithm aversion" caused by the "black box" nature of algorithms, as well as employee work alienation and the rupture of psychological contracts triggered by excessive quantitative surveillance[6]. In terms of governance paths, the academic community widely advocates abandoning purely automated decision-making, proposing the reconstruction of a "human-machine collaboration" model, complemented by algorithmic auditing and rights-remedy systems to safeguard digital ethics[7]. Nevertheless, current scholarship predominantly centers on non-standard gig laborers and broad macro-institutional regulations. Consequently, a significant gap exists regarding formal employment within conventional enterprises; we lack systematic investigations into repairing intra-organizational confidence and upgrading holistic employee lifecycle systems, especially from the standpoint of micro-level organizational behavior. In conventional organizations, using algorithms to prescribe HRM outcomes, and replace human decision-making, is rare. There are several reasons for this: the complexity and equivocality of HRM decisions , algorithmic aversion , limited big organizational data, entrenched power dynamics, and risks associated with HRM decisions for people's lives and livelihoods . Based on this research background, this paper addresses the following questions:

What are the specific application mechanisms of algorithms in enterprise HR decision-making (e.g., recruitment, performance appraisal, dismissal) and the deep-seated motivations behind the trust crises they trigger?How can a scientifically sound optimization framework be constructed to address these challenges?

2. The application logic of algorithmic management in enterprise hr decision-making

2.1 Talent acquisition and matching: a shift from "experience-based judgment" to "multi-dimensional trait computation"

In the hiring process, algorithms have massively upgraded how fast and deep we can process information. Right now, companies are using Natural Language Processing (NLP) to quickly filter through mountains of applicant data. During the interview stage, they’re even rolling out comprehensive video assessment platforms powered by machine learning.These systems track everything—tiny facial micro-expressions, the tone of your voice, and the specific words you use. They then match all that data perfectly against the company's top-performing employees. This lets them calculate a precise score for a candidate's personality, how well they handle stress, and their overall fit for the job.Basically, the whole logic here is to take complex, hard-to-define human traits and turn them into simple data tags that a computer can calculate and rank.

2.2 Performance evaluation and dynamic compensation adjustment: deepening from "periodic assessment" to "real-time quantitative disciplining"

When it comes to performance management, algorithms have completely shaken up the old way of doing things. We’re no longer stuck with those traditional, once-a-year, rigid reviews. Now, running on massive amounts of live data and smart prediction models, the system can dig deep into what an employee actually achieves and what their core strengths are, giving a highly accurate assessment.[8]. Algorithmic control is a major topic in the gig economy as it contributes to the decentralisation of worker autonomy. On the one hand, it is possible to observe that algorithms may give gig workers useful instruments or data to improve their self-governance. On the other hand, the same algorithms regulate the process and ensure conformity and order dramatically reducing the freedom that gig work promises. The tension between autonomy and control, therefore, emerges clearly in different gig platforms. Practically speaking, algorithms can quietly track every little thing an employee does—how long they stay logged in, how fast they type, or how much code they push. It turns all these tiny actions into a constantly updating performance score. This is especially true in the gig economy (like food delivery and ride-hailing apps) and some big tech firms. By looking at real-time supply and demand, plus how well you’re doing right

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that second, the system automatically decides your pay per task and who gets the best orders. Ultimately, it keeps the whole work process under a microscope and constantly trains workers to behave exactly how the system wants.

2.3 Retention early warning and turnover management: an extension from "reactive post-hoc responses" to "proactive predictive interventions"

When it comes to employee relations, algorithms are doing an amazing job at spotting and predicting risks. Using predictive models, companies can easily catch tiny "weak signals" in a worker's daily routine—things like slight changes in when they clock in, shifts in what they look at on the company intranet, or just sending fewer work emails than usual. By crunching all this HR data, the system flags when someone is acting out of character and literally calculates the odds that they are going to quit[9]. This allows HR to step in and try to keep them, or start planning for a replacement, long before the employee actually hands in their resignation. Basically, it turns management from just reacting to problems, into predicting them before they happen.

3. Manifestations of the trust crisis in hr decision-making driven by algorithmic management

3.1 The lack of procedural justice caused by the "algorithmic black box"

The big issue with modern AI models is that they just don't explain themselves. When an employee misses out on a promotion or gets fired because of a low algorithm score, they usually have no idea why the system made that choice or how it did the math. It’s a total "black box"—you know the result, but not the reason. Because this process is kept a secret and completely lacks human empathy[10,11], it leaves workers completely in the dark, making the whole system feel incredibly unfair[12].On top of that, to make sure everyone is hitting company goals, algorithms are used to micromanage and watch every step of the workflow, making employees feel totally trapped. And because these automated systems constantly raise the bar for performance, workers end up with this constant anxiety of being "never good enough." It basically crushes their sense of freedom and control over their own work[13].

3.2 Implicit discrimination triggered by data bias

An algorithm itself doesn't have feelings or prejudices, but the historical data it trains on is inevitably baked with human biases. If a company has a history of favoring certain genders, ages, or degrees, the AI takes those patterns, labels them as "top talent traits," and actually amplifies them. It basically hides deep-rooted bias behind the mask of "objective science." This ruins fair hiring, pushes minorities to the sidelines, and completely destroys any trust in HR decisions.When employees realize the system is systematically getting it wrong because of these biases, they develop a strong case of "algorithm aversion"—they just stop trusting the AI. Faced with this blind bias and Big Brother-style tracking, workers get stuck in a weird tug-of-war between playing along and fighting back. This struggle is basically just them doing whatever they can to survive and adapt to a flawed machine[14].

3.3 Privacy anxiety resulting from excessive quantification and panoptic surveillance

Algorithmic management relies heavily on the 'feeding' of massive data, transforming traditional intermittent management into continuous data extraction based on Electronic Performance Monitoring (EPM). To improve decision precision, enterprises tend to comprehensively collect employees' keystrokes, location trajectories, and even non-working-hour digital footprints without blind spots. This omnipresent continuous monitoring severely violates employees' informational and psychological boundaries[15]. This surveillance model, akin to a "Panopticon," not only infringes upon privacy boundaries but also forms an inescapable "digital gaze." Under this continuous gaze, labor relations regress from traditional "cooperation-trust" to "surveillance-defense." Employees are forced to engage in high-intensity emotional labor and surface acting, resulting in chronic tension and anxiety, which subsequently triggers severe psychological depletion[16]and makes it difficult to maintain high levels of work engagement.

3.4 Emotional deprivation, psychological contract rupture, and counterproductive work behaviors

In the past, HR decisions always had a human touch—managers had empathy and could make

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exceptions for special circumstances. Algorithmic management, however, runs strictly by the numbers. It completely strips away the humanity, treating employees like easily replaceable "data points"[17]. This cold, robotic style of management ignores emotional needs, making workers feel completely alienated and ultimately shattering the unspoken trust—the psychological contract—between employer and employee.Once that trust is gone, employees shift their focus to just surviving the algorithm. To hit targets and avoid being punished, they will use their understanding of the tech to "game the system." They find shortcuts, manipulate the algorithm, or tweak their tasks just to dodge negative outcomes and get ahead. Whether it's feeding the system fake info or exploiting loopholes, these actions aren't just random bad behavior. Experts call them Counterproductive Work Behaviors (CWBs)—which is essentially employees bending the rules to cope with the algorithm's pressure and claw back some control over their own work[19].

4. Deep-seated motivations analysis of the trust crisis

4.1 Technological and cognitive dimension

The closed-off nature of algorithmic decisions, combined with managers relying way too much on tech, totally severs feedback channels and chips away at cognitive trust.Think about how insanely complex the underlying logic of these algorithms actually is. When it comes to things like performance reviews or promotions, the system just spits out an absolute conclusion and completely hides the math. This whole black-box setup masks the real control mechanisms and seriously exacerbates information asymmetry. When you run automated decisions with zero human explanation, it basically barricades the feedback loop and strips employees of their "right to know." The real kicker is that some managers get totally caught up in "technological determinism." When they have to deliver tough calls like demotions or layoffs, they just pass the buck, claiming "the system decided." They're basically using the algorithm as a scapegoat. Once that labor-management dialogue completely snaps, a massive trust deficit is pretty much guaranteed. This total disconnect isn't random—it comes straight from the compounding effect of opaque algorithms mixed with a total lack of human managerial judgment.

4.2 Ethical dimension

The illusion of algorithmic impartiality fundamentally undermines workplace equity. While frequently marketed as unbiased, these predictive models merely replicate archival human resource inputs without accounting for complex societal nuances, the very characteristics that could make algorithms an attractive solution for organizational justice problems—the removal of humans and their (often biased) contextualized decision making—may be precisely what leads people affected by such decisions to perceive algorithms as unfair. So, instead of wiping the slate clean, the AI just hardwires—and even worsens—the same old prejudices about things like gender or degrees. On top of that, AI has a massive "context blind spot." If an employee's productivity drops because of a sudden personal crisis—like getting sick or a family emergency—the system only sees the raw numbers. It has zero ability to read the human reality behind the data. Studies actually show that workers find AI incredibly unfair when dealing with situations that require nuance[20]. This rigid, one-size-fits-all, emotionless logic completely shatters any feeling of fair play, ultimately causing the entire trust system to collapse [21].

4.3 Power and institutional dimension

Algorithmic management completely wrecks the two-way exchange of reciprocal trust, leaving behind a highly oppressive power asymmetry and an institutional vacuum. The whole foundation of these decisions is just endlessly "feeding" the system massive amounts of data, which inevitably brings in pervasive Electronic Performance Monitoring (EPM). This non-stop "digital gaze" crosses both physical and psychological boundaries, basically screaming a clear message to the staff: "We don't trust you."Going by the principle of reciprocity, employees are obviously going to react with defensive behaviors. Sure, a high-pressure vibe might spike short-term work engagement, but the extreme anxiety attached to it easily triggers psychological burnout. You just can't translate that into sustained high performance[18].With this crazy power imbalance, companies basically monopolize the rule-making and algorithmic interpretation rights. Since AI legislation is lagging behind, there's a critical blank spot in corporate governance. Most businesses just don't have proper dispute resolution frameworks in place to override botched machine decisions. This exact combo of "one-way discipline" and a total vacuum in

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institutional relief—where you literally have nowhere to complain—is the final straw that crushes any remaining organizational trust.

5. Optimization paths for hr decision-making from the perspective of algorithmic management

To fix this AI-driven HR trust crisis, companies must ditch the "tech-only" mindset. Instead, they need to build a new decision-making system that balances data-driven logic with genuine human care. To tackle the root causes of this broken trust, businesses should take action across four key areas: technology, overall approach, company policies, and workplace culture. Here is the specific roadmap for improvement:

5.1 Advancing "tech for good": enhancing algorithmic transparency and conducting auditing

When algorithms act as a black box, it creates real cognitive challenges and data bias. Organizations really need to tackle this at the root by boosting the interpretability and fairness of their digital frameworks.

Bring in Explainable AI (XAI). In HR contexts, it’s way better to prioritize highly interpretable models—think logistic regression or decision trees. If they are running complex deep learning models, those absolutely need explanation interfaces. HR departments should just break down the core evaluation metrics, algorithmic weighting, and underlying logic in plain English for the staff. This guarantees their right to information and helps rebuild cognitive trust.

Set up routine algorithmic auditing mechanisms. Companies should bring in neutral third-party agencies or put together an independent internal ethics committee. They need to run regular "de-biasing" tests on HR algorithms, specifically hunting for hidden discriminatory outputs related to gender, age, or educational background. Then they can tweak the parameters right away, which basically stops historical prejudices from getting hardwired in at the technical source.

5.2 Establishing a hybrid decision-making mechanism of "human-machine collaboration"

Algorithms suffer from "contextual blind spots" that cause context deprivation and emotional coldness. To counter this, companies really need to reposition the algorithm from a "substitute" to an "enabler," rebuilding a management paradigm with actual human warmth.

Keep the "human-in-the-loop." The role of algorithms in HR management should be strictly limited to "augmented intelligence." For stuff like performance evaluations or promotion recommendations, algorithms just provide data reference reports. The final comprehensive judgment and decision-making power goes straight to experienced HR managers who actually have empathy.

Managers must also be granted manual intervention and veto rights. For high-risk decisions involving employees' core interests—like terminations or demotions—relying on fully automated systems should be strictly banned. Managers have to factor in unstructured behaviors, like a person's actual work attitude or sudden family crises, and basically exercise an "algorithmic veto." This guarantees that decisions combine data precision with human compassion. It also completely shuts down the whole "blaming the algorithm" excuse.

5.3 Refining employee participation and rights remedy mechanisms

To reverse the power imbalance and the oppressiveness of one-way monitoring, companies really have to restructure their internal frameworks. Breaking down centralized control through this kind of institutional reform is basically the key to restoring healthy, two-way trust between labor and management.

Bring algorithmic rules into democratic consultation procedures. Before adopting or tweaking major HR algorithmic tools—like rolling out new tracking software or changing performance calculation formulas—companies should actually consult with staff upfront through workers' congresses or labor unions. This guarantees employees' right to participate and gives them a real voice under the new management paradigm.

Set up two-way feedback and "algorithmic correction" appeal channels. There needs to be a specialized review mechanism for algorithmic decisions. If employees feel an automated score is unfair

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or suspect the data is just sketchy, they have the right to push back against the results and demand a secondary human review. This kind of institutional relief—where mistakes get fixed and people actually have a place to complain—is a crucial defense line for repairing the psychological contract and organizational trust.

5.4 Cultivating digital ethics: achieving the leap from "data objects" to "value subjects"

To tackle the psychological anxiety and dehumanization caused by excessive quantitative monitoring, companies really have to take a step back and rebuild their underlying cultural values.

Build a "human-centric" data ethics and regulatory framework. Organizations basically need to internalize this mindset: the real point of technology integration is to empower employees, not to marginalize or commodify the workforce. Data collection and tracking must strictly stick to the "data minimization" principle. It’s all about respecting physical and psychological boundaries and getting rid of that creepy, omnipresent "digital gaze."

Focus on algorithmic adaptability and mental health. HR departments shouldn't just run algorithmic literacy training to help staff wrap their heads around the new working paradigm. They also need to set up solid Employee Assistance Programs (EAPs). If someone is dealing with workplace anxiety, algorithmic aversion, or just massive psychological stress from these systems, HR needs to step in right away and help out.

6. Conclusion

With algorithmic management popping up everywhere, this paper zeroes in on the core issue of trust crises in corporate HR decision-making and how to actually fix it. Using literature reviews and logical analysis, I break down the application logic of algorithms in HR, what the crisis looks like, and the hidden drivers behind it. The end goal is to put together a systematic optimization framework, leading to a few core takeaways.

Research Findings: Algorithms have basically sneaked into the entire HR life cycle—from hiring and performance reviews to turnover prediction. Sure, they boost efficiency and precision big time, but they’re also triggering serious issues like a lack of procedural justice, hidden discrimination, privacy anxiety, and psychological contract breaches. The core contributing factors cover algorithmic black-box problems, systematic data bias, intensive surveillance, and emotional deprivation. Together, these create a massive, multi-dimensional trust crisis across cognitive, ethical, and power levels. This isn't just some random technical glitch; it’s a deep structural dilemma fueled by cognitive limits on tech, collapsed fairness, and lopsided institutional power.

Strategies and Takeaways: At its core, algorithmic management shouldn't be about replacing human decisions. It's really about collaborative optimization through "tech for good," human-machine collaboration, institutional relief, and ethical cultivation. The four-dimensional framework built here—focusing on tech transparency, human-machine teamwork, rights protection, and cultural growth—can actually defuse the trust crisis and patch up employees' psychological contracts. It gives companies a realistic roadmap to build healthy, mutually trusting labor relations in the digital age.

Ultimately, this study adds a fresh layer to the interdisciplinary research between algorithmic management and HR. It upgrades the trust governance system for digital-era HR decisions and hands companies a solid playbook to regulate AI use—perfectly balancing technological rationality with genuine humanistic care.

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